



Table Type / Arm Type Flat Type

RCP3

RCA2

RCA

RCS2



RCP3/RCA2
-TA3C



RCP3/RCA2
-TA5C



RCP3/RCA2
-TA7C



RCP3/RCA2
-TA3R



RCP3/RCA2
-TA5R



RCP3/RCA2
-TA7R



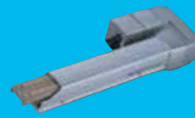
RCA2-TCA3NA



RCA2-TWA3NA



RCA2-TFA3NA



RCA/RCS2
-A4R



RCA/RCS2
-A6R



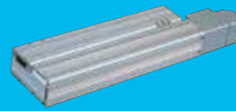
RCS2-TCA5N



RCS2-TWA5N



RCS2-TFA5N



RCS2-F5D

301

Table Type / Arm Type / Flat Type

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Table Type / Arm Type / Flat Type

RCP3 series Pulse Motor Type	Mini Table Type	Inline Motor	36mm Width	RCP3-TA3C	303
			40mm Width	RCP3-TA4C	305
	Table Type	Inline Motor	55mm Width	RCP3-TA5C	307
			65mm Width	RCP3-TA6C	309
			75mm Width	RCP3-TA7C	311
	Mini Table Type	Side-Mounted Motor	36mm Width	RCP3-TA3R	313
			40mm Width	RCP3-TA4R	315
			55mm Width	RCP3-TA5R	317
			65mm Width	RCP3-TA6R	319
	Table Type	Side-Mounted Motor	75mm Width	RCP3-TA7R	321

RCA2 series 24V Servo Motor Type	Mini Table Type	Short-Length Compact Model	32mm Width	RCA2-TCA3NA	323		
			36mm Width	RCA2-TCA4NA	325		
			Short-Length Wide Model		50mm Width	RCA2-TWA3NA	327
					58mm Width	RCA2-TWA4NA	329
			Short-Length Flat Model		61mm Width	RCA2-TFA3NA	331
					71mm Width	RCA2-TFA4NA	333
		Inline Motor		40mm Width	RCA2-TA4C	335	
				55mm Width	RCA2-TA5C	337	
		Table Type		Inline Motor	65mm Width	RCA2-TA6C	339
				75mm Width	RCA2-TA7C	341	
		Mini Table Type		Side-Mounted Motor	40mm Width	RCA2-TA4R	343
		Table Type		Side-Mounted Motor	55mm Width	RCA2-TA5R	345
			65mm Width	RCA2-TA6R	347		
			75mm Width	RCA2-TA7R	349		

RCA2 series 24V Servo Motor Type	Arm Type	40mm Width	RCA-A4R	357
		52mm Width	RCA-A5R	359
		58mm Width	RCA-A6R	361

RCS2 series 200V Servo Motor Type	Mini Table Type	Short-Length Compact Model	48mm Width	RCS2-TCA5N	351		
			Short-Length Wide Model		80mm Width	RCS2-TWA5N	353
			Short-Length Flat Model		95mm Width	RCS2-TFA5N	355
	Arm Type			40mm Width	RCS2-A4R	363	
				52mm Width	RCS2-A5R	365	
				58mm Width	RCS2-A6R	367	
		Flat Type		55mm Width	RCS2-F5D	369	

Slider Type

Mini

Standard

Controllers Integrated

Rod Type

Mini

Standard

Controllers Integrated

Table/Arm/Flat Type

Mini

Standard

Gripper/Rotary Type

Linear Servo Type

Clean-room Type

Splash-Proof Type

Pulse Motor

Servo Motor (24V)

Servo Motor (200V)

Linear Servo Motor

Table Type / Arm Type / Flat Type **302**

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RCP3-TA3C

ROBO Cylinder, Mini Table Type, Motor Unit Coupled Type, Actuator Width 36mm, Pulse Motor, Ball Screw Specification

Model Specification Items	RCP3 — TA3C — I — 20P — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/>
Series — Type	Encoder type — Motor type — Lead — Stroke — Applicable controller — Cable length — Options
I: Incremental * The Simple absolute encoder is also considered type "I".	20P: Pulse motor, 20□ size 6 : 6mm 4 : 4mm 2 : 2mm 20: 20mm ? 100: 100mm (10mm pitch increments) P1: PCON-PL/PO/SE PSEL P3: PCON-CA PMEC/PSEP MSEP N: None P: 1m S: 3m M: 5m X□□: Custom Length See Options below.

* See page Pre-47 for details on the model descriptions.



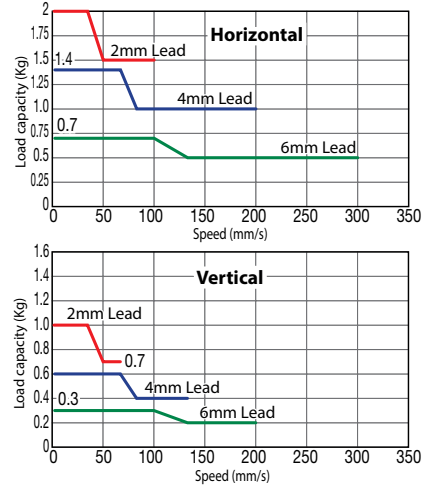
Technical References Appendix P.5



- The payload is the value when operated with acceleration of 0.3G (or 0.2G in the case of 2mm-lead and vertical usage). The upper limit for acceleration is 0.3G (or 0.2G in the case of 2mm-lead and vertical usage).
- See page A-71 for details on push motion.

Speed vs. Load Capacity

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



Actuator Specifications

Leads and Payloads

(Note 1) Please note that the maximum load capacity decreases as the speed increases.

Stroke and Maximum Speed

(Unit: mm/s)

Model number	Feed Screw	Lead (mm)	Max. Load Capacity (Note 1)		Rated thrust (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCP3-TA3C-I-20P-6-①-②-③-④	Ball screw	6	~0.7	~0.3	15	20~100 (every 10mm)
RCP3-TA3C-I-20P-4-①-②-③-④		4	~1.4	~0.6	22	
RCP3-TA3C-I-20P-2-①-②-③-④		2	~2	~1	45	

Stroke	20~100 (mm)	
	Lead	Stroke
Ball screw	6	300<200>
	4	200<133>
	2	100<67>

Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options *See page A-71 for details on push motion. *The values enclosed in < > apply to vertical settings.

① Stroke

① Stroke (mm)	Standard price
20	—
30	—
40	—
50	—
60	—
70	—
80	—
90	—
100	—

③ Cable Length

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

*The standard cable for the RCP3 is the robot cable.
* See page A-59 for cables for maintenance.

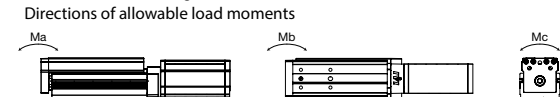
④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø6mm, rolled C10
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Allowable static moment (*)	Ma: 3.2 N·m, Mb: 4.6 N·m, Mc: 5.1 N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

(*) Based on 5,000km of traveling life

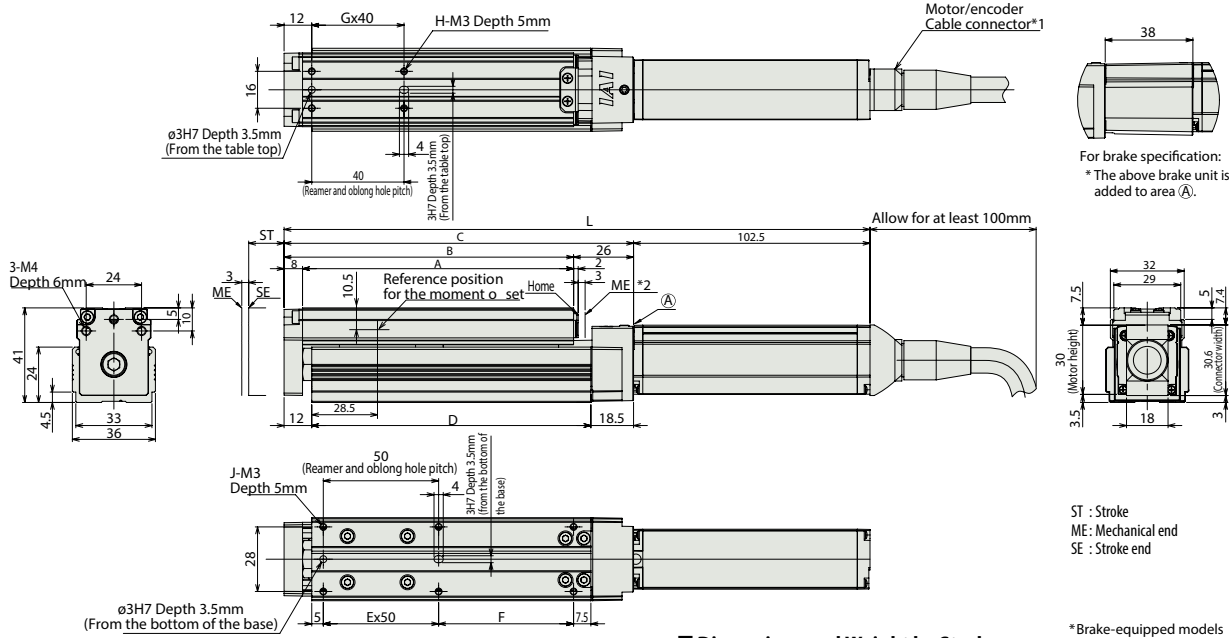


303

RCP3-TA3C

Dimensional Drawings

For Special Orders Appendix P.15



(*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables.
(*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.

Dimensions and Weight by Stroke

Stroke	20	30	40	50	60	70	80	90	100
Without brake	224	234	244	254	264	274	284	294	304
With brake	262	272	282	292	302	312	322	332	342
A	87.5	97.5	107.5	117.5	127.5	137.5	147.5	157.7	167.5
B	95.5	105.5	115.1	125.5	135.5	145.5	155.5	165.5	175.5
C	121.5	131.5	141.5	151.5	161.5	171.5	181.5	191.5	201.5
D	91	101	111	121	131	141	151	161	171
E	1	1	1	1	2	2	2	2	2
F	28.5	38.5	48.5	58.5	68.5	78.5	88.5	98.5	108.5
G	1	1	1	1	2	2	2	2	2
H	4	4	4	4	6	6	6	6	6
J	6	6	6	6	8	8	8	8	8
Weight (kg)	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7

Applicable Controllers

RCP3 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page								
Solenoid Valve Type		PMEC-C-20PI-①-2-②	Easy-to-use controller, even for beginners	3 points	AC100V AC200V	Refer to P541	—	→ P537								
		PSEP-C-20PI-①-2-0	Simple controller operable with the same signal as a solenoid valve													
Solenoid valve multi-axis type PIO specification		MSEP-C-⑩-①-①-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points					DC24V	Refer to P572	—	→ P563				
Solenoid valve multi-axis type Network specification		MSEP-C-⑩-①-④-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected													
Positioner type High-output specification		PCON-CA-20PI-①-2-0	Equipped with a high-output driver Positioner type based on PIO control	512 points									DC24V	Refer to P618	—	→ P607
Pulse-train type High-output specification		PCON-CA-20PI-PL□-2-0	Equipped with a high-output driver Pulse-train input type	(—)												
Field network type High-output specification		PCON-CA-20PI-④-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points												
Pulse Train Input Type (Differential Line Driver)		PCON-PL-20PI-①-2-0	Pulse train input type with differential line driver support	(—)												
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-①-2-0	Pulse train input type with open collector support													
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated Serial Communication	64 points	DC24V	Refer to P671	—	→ P665								
Program Control Type		PSEL-CS-1-20PI-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points												

* This is for the single-axis PSEL. * ① indicates I/O type (NP/PN). * ② indicates power supply voltage (1: 100V / 2: 100~240V).
* ⑩ indicates number of axes (1 to 8). * ④ indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.

IAI

RCP3-TA3C 304

RCP3-TA4C

ROBO Cylinder, Mini Table Type, Motor Unit Coupled Type, Actuator Width 40mm, Pulse Motor, Ball Screw Specification

Model Specification Items	RCP3 — TA4C — I — 28P — □ — □ — □ — □ — □
Series	Type — Encoder type — Motor type — Lead — Stroke — Applicable controller — Cable length — Options
	I: Incremental * The Simple absolute encoder is also considered type "I".
	28P: Pulse motor, 28□ size
	Lead: 6: 6mm, 4: 4mm, 2: 2mm
	Stroke: 20: 20mm, 100: 100mm (10mm pitch increments)
	P1: PCON-PL/PO/SE PSEL P3: PCON-CA PMEC/PSEP MSEP
	N: None P: 1m S: 3m M: 5m X□□: Custom Length
	See Options below.

* See page Pre-47 for details on the model descriptions.



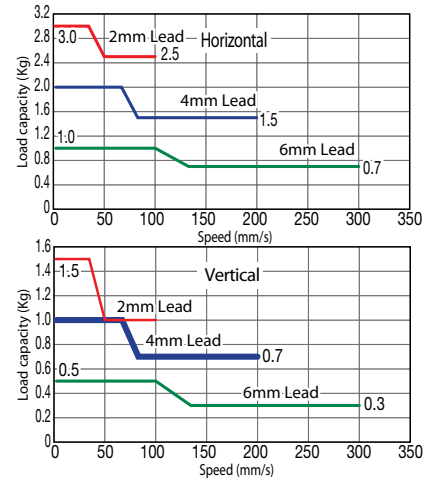
Technical References Appendix P.5



- (1) The payload is the value when operated with acceleration of 0.3G (or 0.2G in the case of 2mm-lead and vertical usage). The upper limit for acceleration is 0.3G (or 0.2G in the case of 2mm-lead and vertical usage).
- (2) See page A-71 for details on push motion.

Speed vs. Load Capacity

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



Actuator Specifications

Leads and Payloads

(Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model number	Feed Screw	Lead (mm)	Max. Load Capacity (Note 1)		Rated thrust (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCP3-TA4C-I-28P-6-①-②-③-④	Ball screw	6	~1	~0.5	25	20~100 (every 10mm)
RCP3-TA4C-I-28P-4-①-②-③-④		4	~2	~1	37	
RCP3-TA4C-I-28P-2-①-②-③-④		2	~3	~1.5	75	

Stroke and Maximum Speed

Stroke / Lead	20~100 (mm)
	Ball screw
6	300
4	200
2	100

Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options *See page A-71 for details on push motion. (Unit: mm/s)

① Stroke

① Stroke (mm)	Standard price
20	—
30	—
40	—
50	—
60	—
70	—
80	—
90	—
100	—

③ Cable Length

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

*The standard cable for the RCP3 is the robot cable.
* See page A-59 for cables for maintenance.

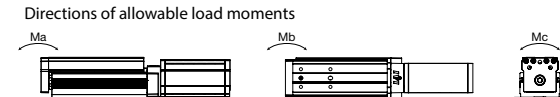
④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Cable exit direction (top)	CJT	→ A-42	—
Cable exit direction (right)	CJR	→ A-42	—
Cable exit direction (left)	CJL	→ A-42	—
Cable exit direction (bottom)	CJB	→ A-42	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø6mm, rolled C10
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Allowable static moment (*)	Ma: 4.2 N-m, Mb: 6 N-m, Mc: 8.2 N-m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

(*) Based on 5,000km of traveling life

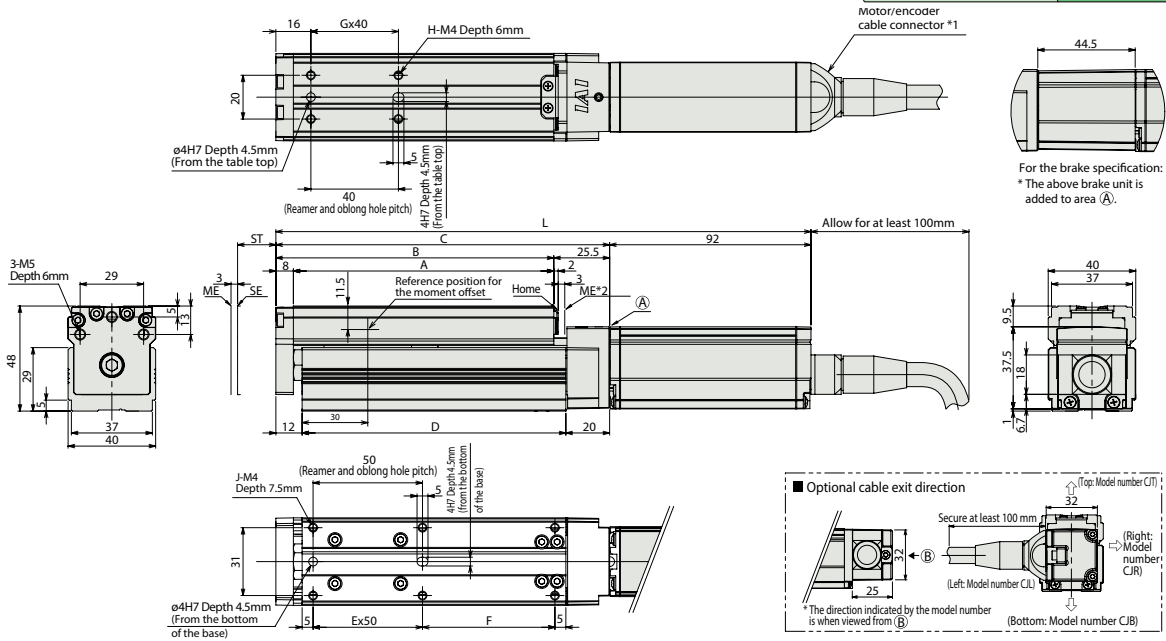


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RCP3-TA4C

Dimensional Drawings

For Special Orders Appendix P.15



(*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables.
 (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.

ST : Stroke
 ME: Mechanical end
 SE : Stroke end

Dimensions and Weight by Stroke

* Brake-equipped models are heavier by 0.2kg.

Stroke	20	30	40	50	60	70	80	90	100	
L	Without brake	214.5	224.5	234.5	244.5	254.5	264.5	274.5	284.5	294.5
	With brake	259	269	279	289	299	309	319	329	339
A	89	99	109	119	129	139	149	159	169	
B	97	107	117	127	137	147	157	167	177	
C	122.5	132.5	142.5	152.5	162.5	172.5	182.5	192.5	202.5	
D	90.5	100.5	110.5	120.5	130.5	140.5	150.5	160.5	170.5	
E	1	1	1	1	2	2	2	2	2	
F	30.5	40.5	50.5	60.5	70.5	80.5	90.5	100.5	110.5	
G	1	1	1	1	2	2	2	2	2	
H	4	4	4	4	6	6	6	6	6	
J	6	6	6	6	8	8	8	8	8	
Weight (kg)	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9	

Applicable Controllers

RCP3 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		PMEC-C-28PI-(1)-2-(1)	Easy-to-use controller, even for beginners	3 points	AC100V AC200V	Refer to P541	—	→ P537
		PSEP-C-28PI-(1)-2-0	Simple controller operable with the same signal as a solenoid valve					→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-(1)-(1)-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	Refer to P572	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-(1)-(1)-(1)-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					→ P607
Positioner type High-output specification		PCON-CA-28PI-(1)-2-0	Equipped with a high-output driver Positioner type based on PIO control	512 points	DC24V	Refer to P618	—	→ P623
Pulse-train type High-output specification		PCON-CA-28PI-PL-(1)-2-0	Equipped with a high-output driver Pulse-train input type	(—)				
Field network type High-output specification		PCON-CA-28PI-(1)-(1)-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points				
Pulse Train Input Type (Differential Line Driver)		PCON-PL-28PI-(1)-2-0	Pulse train input type with differential line driver support	(—)	DC24V	Refer to P628	—	→ P665
Pulse Train Input Type (Open Collector)		PCON-PO-28PI-(1)-2-0	Pulse train input type with open collector support					
Serial Communication Type		PCON-SE-28PI-N-0-0	Dedicated Serial Communication	64 points	DC24V	Refer to P671	—	→ P665
Program Control Type		PSEL-CS-1-28PI-(1)-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	Refer to P671	—	→ P665

* This is for the single-axis PSEL. * (1) indicates I/O type (NP/PN). * (1) indicates power supply voltage (1: 100V / 2: 100~240V). * (1)-(1) indicates number of axes (1 to 8). * (1)-(1) indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.

- Slider Type
- Mini
- Standard
- Controllers Integrated
- Rod Type
- Mini
- Standard
- Controllers Integrated
- Table/ Arm/ Flat Type
- Mini
- Standard
- Controllers Integrated
- Gripper/ Rotary Type
- Linear Servo Type
- Clean-room Type
- Splash-Proof Type
- Pulse Motor
- Servo Motor (24V)
- Servo Motor (200V)
- Linear Servo Motor

RCP3-TA5C

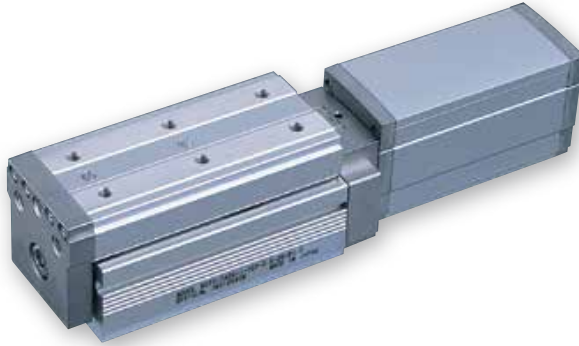
ROBO Cylinder, Table Type, Actuator Width 55mm, Pulse Motor, Coupled

Model Specification Items **RCP3 — TA5C — I — 35P** — [] — [] — [] — [] — []

Series — Type — Encoder type — Motor type — Lead — Stroke — Applicable controller — Cable length — Options

I: Incremental 35P: Pulse motor, 10: 10mm 25: 25mm P1: PCON-PL/PO/SE N: None See Options below.
 * The Simple absolute encoder is also considered type "I". 35□ size 5: 5mm 2.5: 2.5mm ? 100: 100mm (25mm pitch increments) P3: PCON-CA PMEC/PSEP MSEP P: 1m S: 3m M: 5m X□□: Custom Length

* See page Pre-47 for details on the model descriptions.

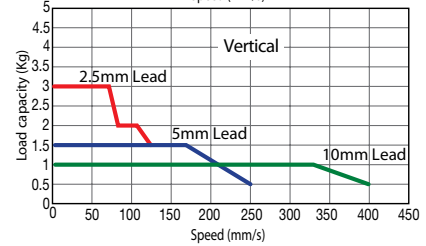
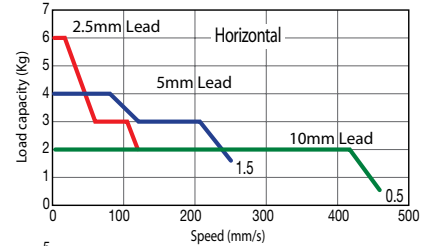


Technical References Appendix P.5

- POINT** Notes on selection
- Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
 - Please note that the maximum speed is different when used horizontally versus vertically.
 - 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). This is the upper limit of the acceleration.
 - See page A-71 for details on push motion.

Speed vs. Load Capacity

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



Actuator Specifications

Leads and Payloads

(Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model number	Lead (mm)	Max. Load Capacity (Note 1)		Rated thrust (N)	Stroke (mm)
		Horizontal (kg)	Vertical (kg)		
RCP3-TA5C-I-35P-10-①-②-③-④	10	~2	~1	34	25~100 (every 25mm)
RCP3-TA5C-I-35P-5-①-②-③-④	5	~4	~1.5	68	
RCP3-TA5C-I-35P-2.5-①-②-③-④	2.5	~6	~3	136	

Stroke and Maximum Speed (Unit: mm/s)

Stroke Lead	25~100 (every 25mm)
10	465<400>
5	250
2.5	125

Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options *See page A-71 for details on push motion. *The values enclosed in < > apply to vertical settings.

① Stroke

① Stroke (mm)	Standard price
25	—
50	—
75	—
100	—

③ Cable Length

Type	Cable symbol	Standard price
Standard (Robot Cables)	P (1m)	—
	S (3m)	—
	M (5m)	—
Special length	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-59 for cables for maintenance.

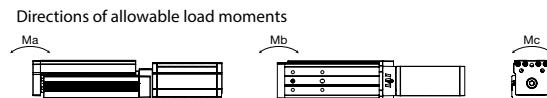
④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Cable exit direction (top)	CJT	→ A-42	—
Cable exit direction (right)	CJR	→ A-42	—
Cable exit direction (left)	CJL	→ A-42	—
Cable exit direction (bottom)	CJB	→ A-42	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, special alumite treated
Allowable static moment	Ma: 25.5 N·m, Mb: 36.5 N·m, Mc: 56.1 N·m
Allowable dynamic moment (*)	Ma: 6.57 N·m, Mb: 9.32 N·m, Mc: 14.32 N·m
Overhang load length	Within the load moment range
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

(*) Based on 5,000km of traveling life

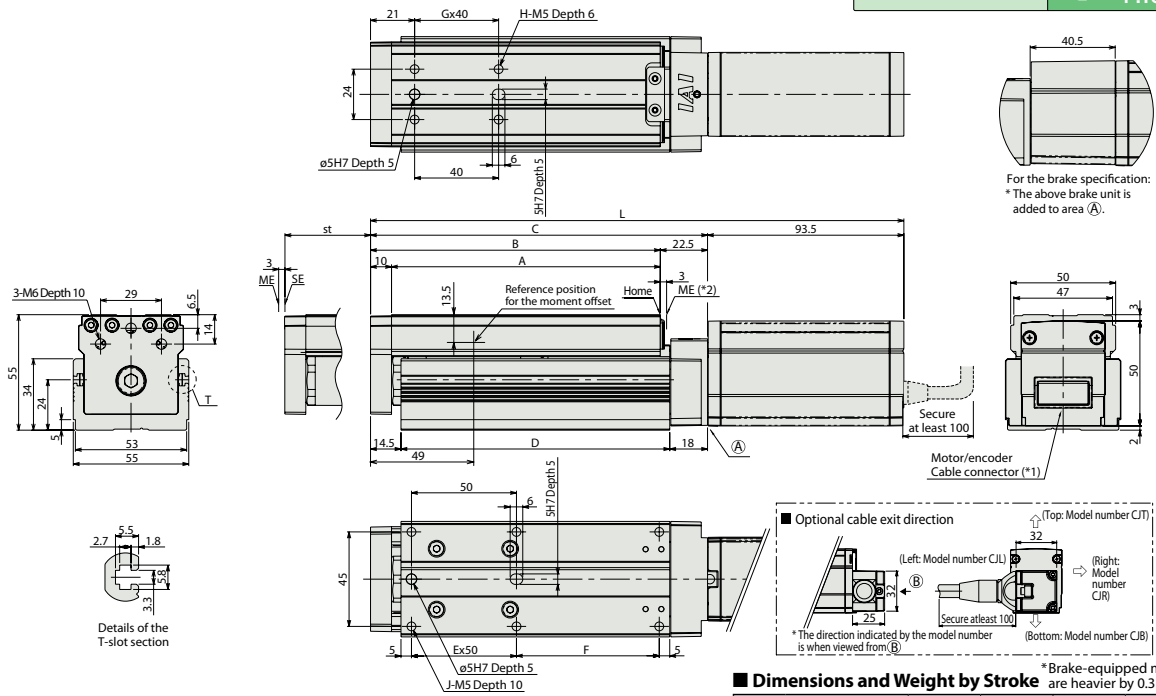


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RCP3-TA5C

Dimensional Drawings

For Special Orders Appendix P.15



(*1) Connect the motor-encoder integrated cable here. See page A-59 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

■ Dimensions and Weight by Stroke * Brake-equipped models are heavier by 0.3kg.

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

② Applicable Controllers

RCP3 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page												
Solenoid Valve Type		PMEC-C-35PI-①-2-①	Easy-to-use controller, even for beginners	3 points	AC100V AC200V	Refer to P541	—	→ P537												
		PSEP-C-35PI-①-2-0	Simple controller operable with the same signal as a solenoid valve																	
Solenoid valve multi-axis type PIO specification		MSEP-C-③④⑤⑥⑦⑧⑨⑩-①-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points					DC24V	Refer to P572	—	→ P563								
Solenoid valve multi-axis type Network specification		MSEP-C-③④⑤⑥⑦⑧⑨⑩-④-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected																	
Positioner type High-output specification		PCON-CA-35PI-①-2-0	Equipped with a high-output driver Positioner type based on PIO control	512 points									DC24V	Refer to P618	—	→ P607				
Pulse-train type High-output specification		PCON-CA-35PI-PL□-2-0	Equipped with a high-output driver Pulse-train input type	(—)																
Field network type High-output specification		PCON-CA-35PI-④-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points																
Pulse Train Input Type (Differential Line Driver)		PCON-PL-35PI-①-2-0	Pulse train input type with differential line driver support	(—)													DC24V	Refer to P628	—	→ P623
Pulse Train Input Type (Open Collector)		PCON-PO-35PI-①-2-0	Pulse train input type with open collector support																	
Serial Communication Type		PCON-SE-35PI-N-0-0	Dedicated Serial Communication	64 points																
Program Control Type		PSEL-CS-1-35PI-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points																

* This is for the single-axis PSEL. * ① indicates I/O type (NP/PN). * ④ indicates power supply voltage (1: 100V / 2: 100~240V).
 * ③④⑤⑥⑦⑧⑨⑩ indicates number of axes (1 to 8). * ④ indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.

Slider Type

Mini

Standard

Controllers Integrated

Rod Type

Mini

Standard

Controllers Integrated

Table/Arm/Flat Type

Mini

Standard

Gripper/Rotary Type

Linear Servo Type

Clean-room Type

Splash-Proof Type

Pulse Motor

Servo Motor (24V)

Servo Motor (200V)

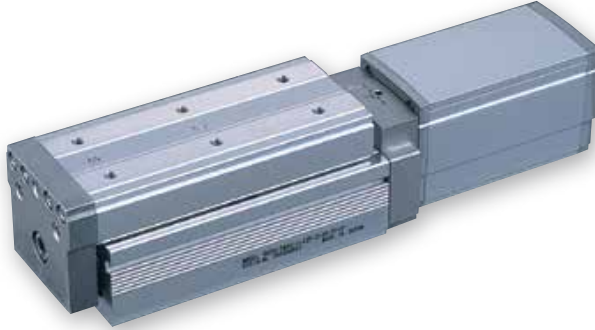
Linear Servo Motor

RCP3-TA6C

ROBO Cylinder, Table Type, Actuator Width 65mm, Pulse Motor, Coupled

Model Specification Items	RCP3 — TA6C — I — 42P — □ — □ — □ — □ — □
	Series — Type — Encoder type — Motor type — Lead — Stroke — Applicable controller — Cable length — Options
	I: Incremental * The Simple absolute encoder is also considered type "I".
	42P: Pulse motor, 42□ size
	12: 12mm 6: 6mm 3: 3mm
	25: 25mm ? 150: 150mm (25mm pitch increments)
	P1: PCON-PL/PO/SE PSEL P3: PCON-CA PMEC/PSEP MSEP
	N: None P: 1m S: 3m M: 5m X□□: Custom Length
	See Options below.

* See page Pre-47 for details on the model descriptions.

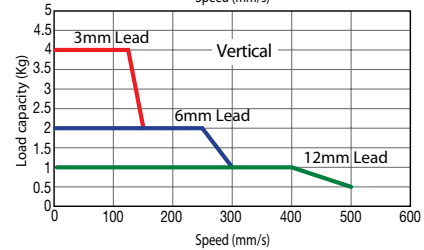
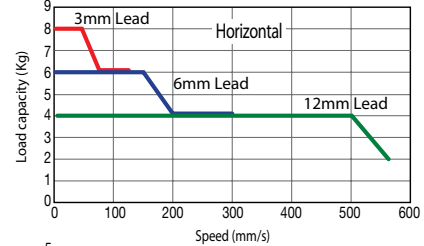


Technical References Appendix P.5

- POINT** Notes on selection
- (1) Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
 - (2) Please note that the maximum speed is different when used horizontally versus vertically.
 - (3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically). This is the upper limit of the acceleration.
 - (4) See page A-71 for details on push motion.

Speed vs. Load Capacity

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



Actuator Specifications

Leads and Payloads

(Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model number	Lead (mm)	Max. Load Capacity (Note 1)		Rated thrust (N)	Stroke (mm)
		Horizontal (kg)	Vertical (kg)		
RCP3-TA6C-I-42P-12-①-②-③-④	12	~4	~1	60	25~150 (every 25mm)
RCP3-TA6C-I-42P-6-①-②-③-④	6	~6	~2	110	
RCP3-TA6C-I-42P-3-①-②-③-④	3	~8	~4	189	

Stroke and Maximum Speed

(Unit: mm/s)

Stroke Lead	25~100 (every 25mm)
12	560<500>
6	300
3	150

Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options * See page A-71 for details on push motion. * The values enclosed in < > apply to vertical settings.

① Stroke

① Stroke (mm)	Standard price
25	—
50	—
75	—
100	—
125	—
150	—

③ Cable Length

Type	Cable symbol	Standard price
Standard (Robot Cables)	P (1m)	—
	S (3m)	—
	M (5m)	—
Special length	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-59 for cables for maintenance.

④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Cable exit direction (top)	CJT	→ A-42	—
Cable exit direction (right)	CJR	→ A-42	—
Cable exit direction (left)	CJL	→ A-42	—
Cable exit direction (bottom)	CJB	→ A-42	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø10mm, rolled C10
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, special alumite treated
Allowable static moment	Ma: 29.4 N·m, Mb: 42.0 N·m, Mc: 74.1 N·m
Allowable dynamic moment (*)	Ma: 7.26 N·m, Mb: 10.3 N·m, Mc: 18.25 N·m
Overhang load length	Within the load moment range
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

(*) Based on 5,000km of traveling life

Directions of allowable load moments



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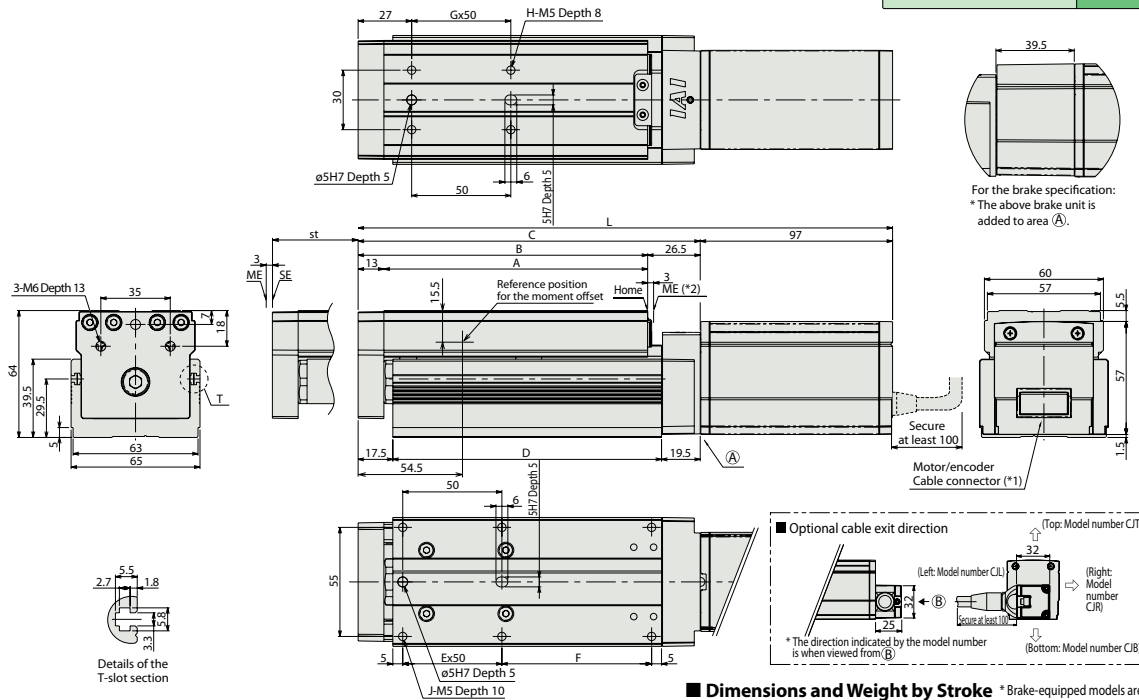
Sold & Serviced By:



Toll Free Phone (877) SERV098
Toll Free Fax (877) SERV099
www.electromate.com
sales@electromate.com

Dimensional Drawings

For Special Orders Appendix P.15



(*1) Connect the motor-encoder integrated cable here. See page A-59 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

■ Dimensions and Weight by Stroke * Brake-equipped models are heavier by 0.4kg.

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	

② Applicable Controllers

RCP3 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		PMEC-C-42PI-①-2-②	Easy-to-use controller, even for beginners	3 points	AC100V AC200V	Refer to P541	—	→ P537
		PSEP-C-42PI-①-2-0	Simple controller operable with the same signal as a solenoid valve					→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-③-④-⑤-⑥-⑦-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	Refer to P572	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-③-④-⑤-⑥-⑦-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					→ P607
Positioner type High-output specification		PCON-CA-42PI-①-2-0	Equipped with a high-output driver Positioner type based on PIO control	512 points	DC24V	Refer to P618	—	→ P623
Pulse-train type High-output specification		PCON-CA-42PI-PL□-2-0	Equipped with a high-output driver Pulse-train input type	(—)				
Field network type High-output specification		PCON-CA-42PI-④-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points				
Pulse Train Input Type (Differential Line Driver)		PCON-PL-42PI-①-2-0	Pulse train input type with differential line driver support	(—)	DC24V	Refer to P628	—	→ P665
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-①-2-0	Pulse train input type with open collector support					
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated Serial Communication	64 points	DC24V	Refer to P671	—	→ P665
Program Control Type		PSEL-CS-1-42PI-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	Refer to P671	—	→ P665

* This is for the single-axis PSEL. * ① indicates I/O type (NP/PN). * ② indicates power supply voltage (1: 100V / 2: 100~240V).
 * ③ indicates number of axes (1 to 8). * ④ indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.



RCP3-TA6C **310**

- Slider Type
- Mini
- Standard
- Controllers Integrated
- Rod Type
- Mini
- Standard
- Controllers Integrated
- Table/ Arm/ Flat Type
- Mini
- Standard
- Controllers Integrated
- Gripper/ Rotary Type
- Linear Servo Type
- Clean-room Type
- Splash-Proof Type

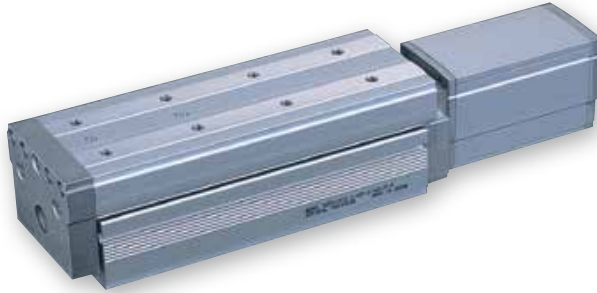
- Pulse Motor
- Servo Motor (24V)
- Servo Motor (200V)
- Linear Servo Motor

RCP3-TA7C

ROBO Cylinder, Table Type, Actuator Width 75mm, Pulse Motor, Coupled

Model Specification Items	RCP3 — TA7C — I — 42P — — — — —
	Series — Type — Encoder type — Motor type — Lead — Stroke — Applicable controller — Cable length — Options
	I: Incremental * The Simple absolute encoder is also considered type "I".
	42P: Pulse motor, 42□ size
	12: 12mm 6: 6mm 3: 3mm
	25: 25mm ? 200: 200mm (25mm pitch increments)
	P1: PCON-PL/PO/SE PSEL P3: PCON-CA PMEC/PSEP MSEP
	N: None P: 1m S: 3m M: 5m X□□: Custom Length
	See Options below.

* See page Pre-47 for details on the model descriptions.

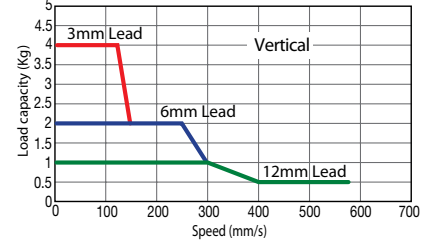
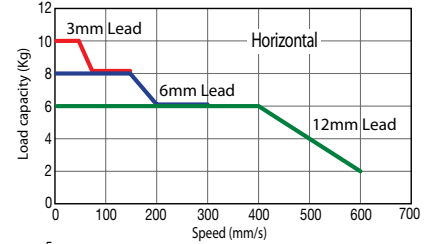


Technical References Appendix P.5

- POINT** Notes on selection
- (1) Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
 - (2) Please note that the maximum speed is different when used horizontally versus vertically.
 - (3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically). This is the upper limit of the acceleration.
 - (4) See page A-71 for details on push motion.

Speed vs. Load Capacity

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



Actuator Specifications

Leads and Payloads

(Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model number	Lead (mm)	Max. Load Capacity (Note 1)		Rated thrust (N)	Stroke (mm)
		Horizontal (kg)	Vertical (kg)		
RCP3-TA7C-I-42P-12-①-②-③-④	12	~6	~1	60	25~200 (every 25mm)
RCP3-TA7C-I-42P-6-①-②-③-④	6	~8	~2	110	
RCP3-TA7C-I-42P-3-①-②-③-④	3	~10	~4	189	

Stroke and Maximum Speed

(Unit: mm/s)

Stroke Lead	25~100 (every 25mm)
12	600<580
6	300
3	150

Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options * See page A-71 for details on push motion. * The values enclosed in < > apply to vertical settings.

① Stroke

① Stroke (mm)	Standard price
25	—
50	—
75	—
100	—
125	—
150	—
175	—
200	—

③ Cable Length

Type	Cable symbol	Standard price
Standard (Robot Cables)	P (1m)	—
	S (3m)	—
	M (5m)	—
Special length	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-59 for cables for maintenance.

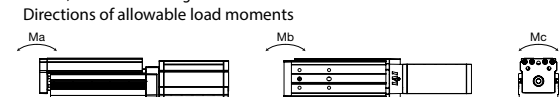
④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Cable exit direction (top)	CJT	→ A-42	—
Cable exit direction (right)	CJR	→ A-42	—
Cable exit direction (left)	CJL	→ A-42	—
Cable exit direction (bottom)	CJB	→ A-42	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø10mm, rolled C10
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, special alumite treated
Allowable static moment	Ma: 42.6 N·m, Mb: 60.8 N·m, Mc: 123.2 N·m
Allowable dynamic moment (*)	Ma: 9.91 N·m, Mb: 14.13 N·m, Mc: 28.65 N·m
Overhang load length	Within the load moment range
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

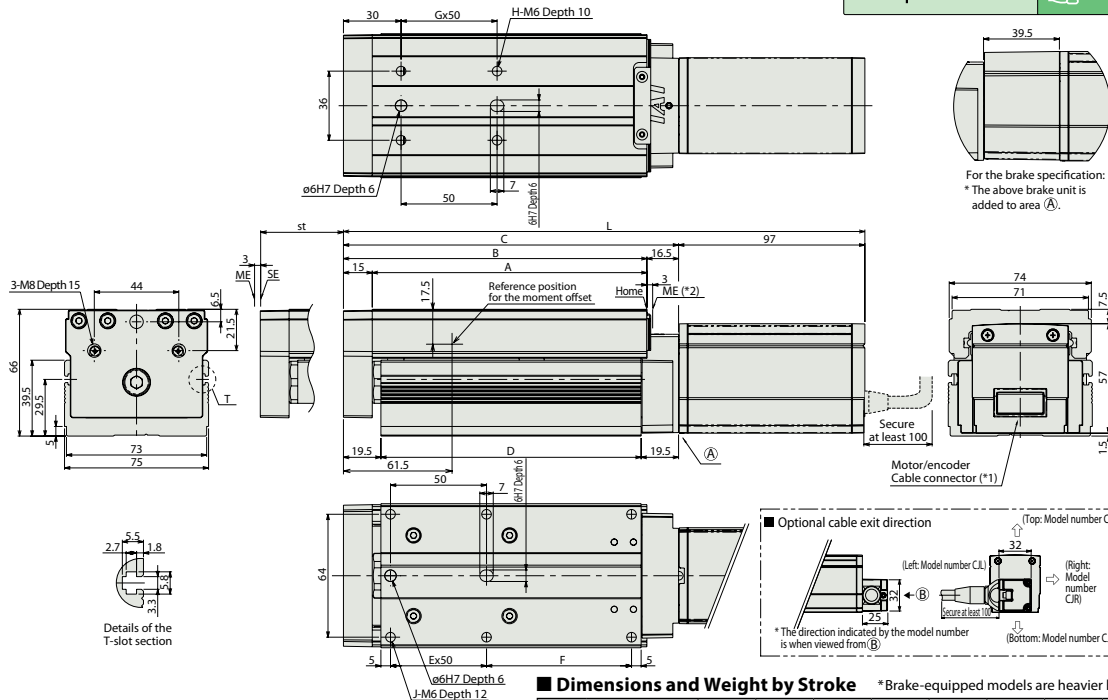
(*) Based on 5,000km of traveling life



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Dimensional Drawings

For Special Orders Appendix P.15



■ Dimensions and Weight by Stroke * Brake-equipped models are heavier by 0.4kg.

L	Stroke	25	50	75	100	125	150	175	200
	Without brake	246.5	271.5	296.5	321.5	346.5	371.5	396.5	421.5
With brake	286	311	336	361	386	411	436	461	
A	118	143	168	193	218	243	268	293	
B	133	158	183	208	233	258	283	308	
C	149.5	174.5	199.5	224.5	249.5	274.5	299.5	324.5	
D	110.5	135.5	160.5	185.5	210.5	235.5	260.5	285.5	
E	1	1	2	2	3	3	4	4	
F	50.5	75.5	50.5	75.5	50.5	75.5	50.5	75.5	
G	1	1	2	2	3	3	4	4	
H	4	4	6	6	8	8	10	10	
J	6	6	8	8	10	10	12	12	
Weight (kg)	2.1	2.3	2.5	2.8	3	3.2	3.4	3.6	

- (*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables.
 - (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.
- ME : Mechanical end SE : Stroke end

② Applicable Controllers

RCP3 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		PMEC-C-42PI-①-2-②	Easy-to-use controller, even for beginners	3 points	AC100V AC200V	Refer to P541	—	→ P537
		PSEP-C-42PI-①-2-0	Simple controller operable with the same signal as a solenoid valve			Refer to P555	—	→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-④④④④-①-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	Refer to P572	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-④④④④-④④-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected				—	→ P607
Positioner type High-output specification		PCON-CA-42PI-①-2-0	Equipped with a high-output driver Positioner type based on PIO control	512 points	DC24V	Refer to P618	—	→ P623
Pulse-train type High-output specification		PCON-CA-42PI-PL□-2-0	Equipped with a high-output driver Pulse-train input type	(—)				
Field network type High-output specification		PCON-CA-42PI-④④-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points				
Pulse Train Input Type (Differential Line Driver)		PCON-PL-42PI-①-2-0	Pulse train input type with differential line driver support	(—)	DC24V	Refer to P628	—	→ P623
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-①-2-0	Pulse train input type with open collector support					
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated Serial Communication	64 points	DC24V	Refer to P671	—	→ P665
Program Control Type		PSEL-CS-1-42PI-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	Refer to P671	—	→ P665

* This is for the single-axis PSEL. * ① indicates I/O type (NP/PN). * ④ indicates power supply voltage (1: 100V / 2: 100~240V).
* ④④④④ indicates number of axes (1 to 8). * ④④ indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.



RCP3-TA7C

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Slider Type

Mini

Standard

Controllers Integrated

Rod Type

Mini

Standard

Controllers Integrated

Table/ Arm/ Flat Type

Mini

Standard

Gripper/ Rotary Type

Linear Servo Type

Clean-room Type

Splash-Proof Type

Pulse Motor

Servo Motor (24V)

Servo Motor (200V)

Linear Servo Motor

RCP3-TA3R

ROBO Cylinder, Mini Table Type, Side-Mounted Motor, Actuator Width 36mm, Pulse Motor, Ball Screw Specification

Model Specification Items	RCP3 — TA3R — I — 20P — □ — □ — □ — □ — □
	Series — Type — Encoder type — Motor type — Lead — Stroke — Applicable controller — Cable length — Options
	I: Incremental * The Simple absolute encoder is also considered type "I".
	20P: Pulse motor, 20□ size
	6 : 6mm 4 : 4mm 2 : 2mm
	20: 20mm ? 100: 100mm (10mm pitch increments)
	P1: PCON-PL/PO/SE PSEL P3: PCON-CA PMEC/PSEP MSEP
	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-47 for details on the model descriptions.

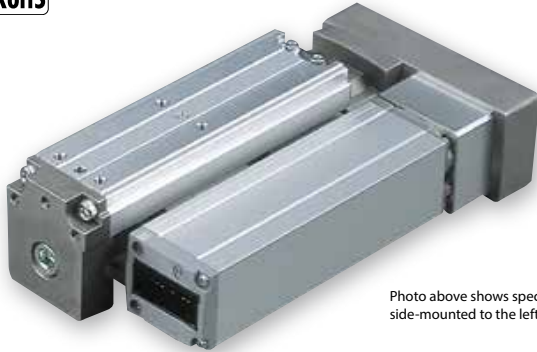


Photo above shows specification with motor side-mounted to the left (ML Option).

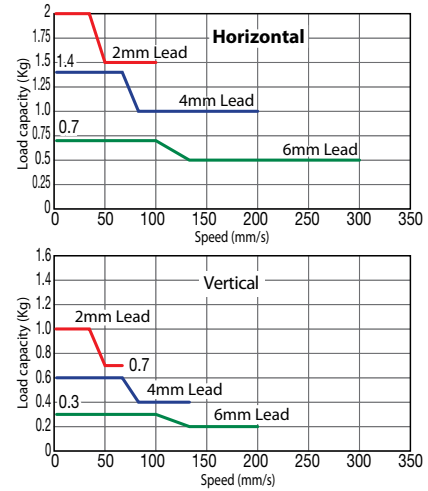
Technical References Appendix P.5



- (1) The payload is the value when operated with acceleration of 0.3G (or 0.2G in the case of 2mm-lead and vertical usage). The upper limit for acceleration is 0.3G (or 0.2G in the case of 2mm-lead and vertical usage).
- (2) See page A-71 for details on push motion.

Speed vs. Load Capacity

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



Actuator Specifications

Leads and Payloads

(Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model number	Feed Screw	Lead (mm)	Max. Load Capacity (Note 1)		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)			
RCP3-TA3R-I-20P-6-①-②-③-④	Ball screw	6	~0.7	~0.3	15	±0.02	20~100 (every 10mm)
RCP3-TA3R-I-20P-4-①-②-③-④		4	~1.4	~0.6	22		
RCP3-TA3R-I-20P-2-①-②-③-④		2	~2	~1	45		

Stroke and Maximum Speed

(Unit: mm/s)

Ball screw	Stroke	20~100 (mm)
	Lead	
Ball screw	6	300<200>
	4	200<133>
	2	100<67>

Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options *See page A-71 for details on push motion. * The values enclosed in < > apply to vertical settings.

① Stroke

① Stroke (mm)	Standard price
20	—
30	—
40	—
50	—
60	—
70	—
80	—
90	—
100	—

③ Cable Length

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

* The standard cable for the RCP3 is the robot cable.
* See page A-59 for cables for maintenance.

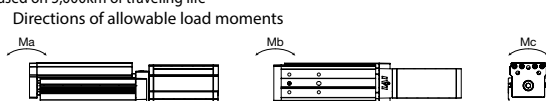
④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Side-mounted motor to the left (standard)	ML	→ A-52	—
Side-mounted motor to the right	MR	→ A-52	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø6mm, rolled C10
Lost Motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Allowable dynamic moment (*)	Ma: 3.2 N·m, Mb: 4.6 N·m, Mc: 5.1 N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

(*) Based on 5,000km of traveling life

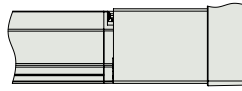


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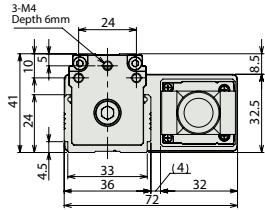
Dimensional Drawings

For Special Orders Appendix P.15

* The drawing below shows the specification with motor side-mounted to the left.

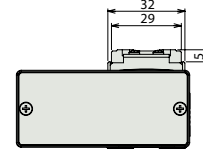
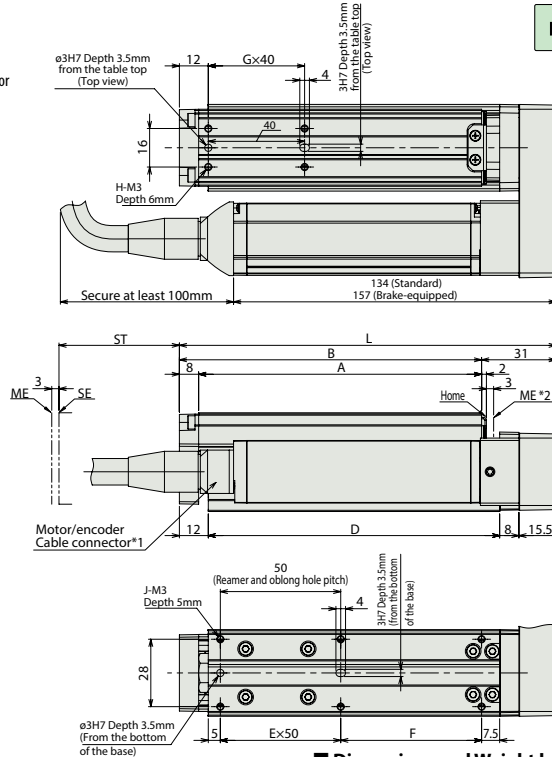


With the brake:
(see drawing on the right for dimensions)



The reference position for moment offset is the same as the position on the TA3C (P304).

- (*)1 Connect the motor-encoder integrated cable here. See page A-59 for details on cables.
- (*)2 After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.



ST : Stroke
ME : Mechanical end
SE : Stroke end

■ Dimensions and Weight by Stroke* Brake-equipped models are heavier by 0.1 kg.

Stroke	20	30	40	50	60	70	80	90	100
L	126.5	136.5	146.5	156.5	166.5	176.5	186.5	196.5	206.5
A	87.5	97.5	107.5	117.5	127.5	137.5	147.5	157.5	167.5
B	95.5	105.5	115.5	125.5	135.5	145.5	155.5	165.5	175.5
D	91	101	111	121	131	141	151	161	171
E	1	1	1	1	2	2	2	2	2
F	28.5	38.5	48.5	58.5	68.5	78.5	88.5	98.5	108.5
G	1	1	1	1	2	2	2	2	2
H	4	4	4	4	6	6	6	6	6
J	6	6	6	6	8	8	8	8	8
Weight (kg)	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7

② Applicable Controllers

RCP3 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		PMEC-C-20PI-①-2-②	Easy-to-use controller, even for beginners	3 points	AC100V AC200V	Refer to P541	—	→ P537
		PSEP-C-20PI-①-2-0	Simple controller operable with the same signal as a solenoid valve					→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-④-③-①-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	Refer to P572	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-④-③-④-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					→ P607
Positioner type High-output specification		PCON-CA-20PI-①-2-0	Equipped with a high-output driver Positioner type based on PIO control	512 points	DC24V	Refer to P618	—	→ P623
Pulse-train type High-output specification		PCON-CA-20PI-PL□-2-0	Equipped with a high-output driver Pulse-train input type	(—)				
Field network type High-output specification		PCON-CA-20PI-④-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points				
Pulse Train Input Type (Differential Line Driver)		PCON-PL-20PI-①-2-0	Pulse train input type with differential line driver support	(—)	DC24V	Refer to P628	—	→ P665
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-①-2-0	Pulse train input type with open collector support					
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated Serial Communication	64 points	DC24V	Refer to P671	—	→ P665
Program Control Type		PSEL-CS-1-20PI-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	Refer to P671	—	→ P665

* This is for the single-axis PSEL. * ① indicates I/O type (NP/PN). * ② indicates power supply voltage (1: 100V / 2: 100~240V).
* ④ indicates number of axes (1 to 8). * ④ indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.

- Slider Type
- Mini
- Standard
- Controllers Integrated
- Rod Type
- Mini
- Standard
- Controllers Integrated
- Table/Arm/Flat Type
- Mini
- Standard
- Controllers Integrated
- Gripper/Rotary Type
- Linear Servo Type
- Clean-room Type
- Splash-Proof Type

- Pulse Motor
- Servo Motor (24V)
- Servo Motor (200V)
- Linear Servo Motor

RCP3-TA4R

ROBO Cylinder, Mini Table Type, Side-Mounted Motor, Actuator Width 40mm, Pulse Motor, Ball Screw Specification

Model Specification Items	RCP3 — TA4R — I — 28P — — — — —
Series	Type — Encoder type — Motor type — Lead — Stroke — Applicable controller — Cable length — Options
	I: Incremental * The Simple absolute encoder is also considered type "I".
	28P: Pulse motor, 28□ size
	6: 6mm 4: 4mm 2: 2mm
	20: 20mm ? 100: 100mm (10mm pitch increments)
	P1: PCON-PL/PO/SE PSEL P3: PCON-CA PMEC/PSEP MSEP
	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-47 for details on the model descriptions.



Photo above shows specification with TA3R motor side-mounted to the left (ML).

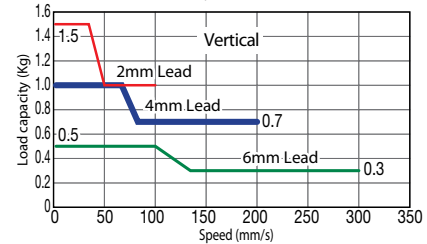
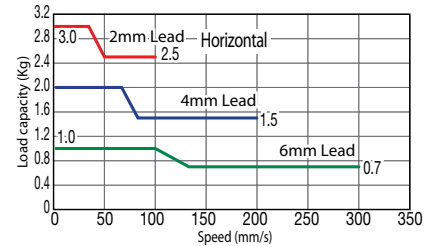
Technical References Appendix P.5



- (1) The payload is the value when operated with acceleration of 0.3G (or 0.2G in the case of 2mm-lead and vertical usage). The upper limit for acceleration is 0.3G (or 0.2G in the case of 2mm-lead and vertical usage).
- (2) See page A-71 for details on push motion.

Speed vs. Load Capacity

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



Actuator Specifications

Leads and Payloads

(Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model number	Feed Screw	Lead (mm)	Max. Load Capacity (Note 1)		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)			
RCP3-TA4R-I-28P-6-①-②-③-④	Ball screw	6	~1	~0.5	25	±0.02	20~100 (every 10mm)
RCP3-TA4R-I-28P-4-①-②-③-④		4	~2	~1	37		
RCP3-TA4R-I-28P-2-①-②-③-④		2	~3	~1.5	75		

Stroke and Maximum Speed

Stroke / Lead	20~100 (mm)
	Ball screw

Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options *See page A-71 for details on push motion. (Unit: mm/s)

① Stroke

① Stroke (mm)	Standard price
20	—
30	—
40	—
50	—
60	—
70	—
80	—
90	—
100	—

③ Cable Length

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

* The standard cable for the RCP3 is the robot cable.
* See page A-59 for cables for maintenance.

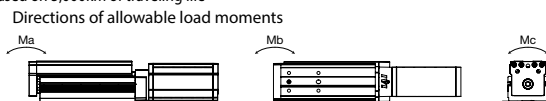
④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Cable exit direction (top)	CJT	→ A-42	—
Cable exit direction (outside)	CJO	→ A-42	—
Cable exit direction (bottom)	CJB	→ A-42	—
Side-mounted motor to the left (standard)	ML	→ A-52	—
Side-mounted motor to the right	MR	→ A-52	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø6mm, rolled C10
Lost Motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Allowable dynamic moment (*)	Ma: 4.2 N·m, Mb: 6 N·m, Mc: 8.2 N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

(*) Based on 5,000km of traveling life

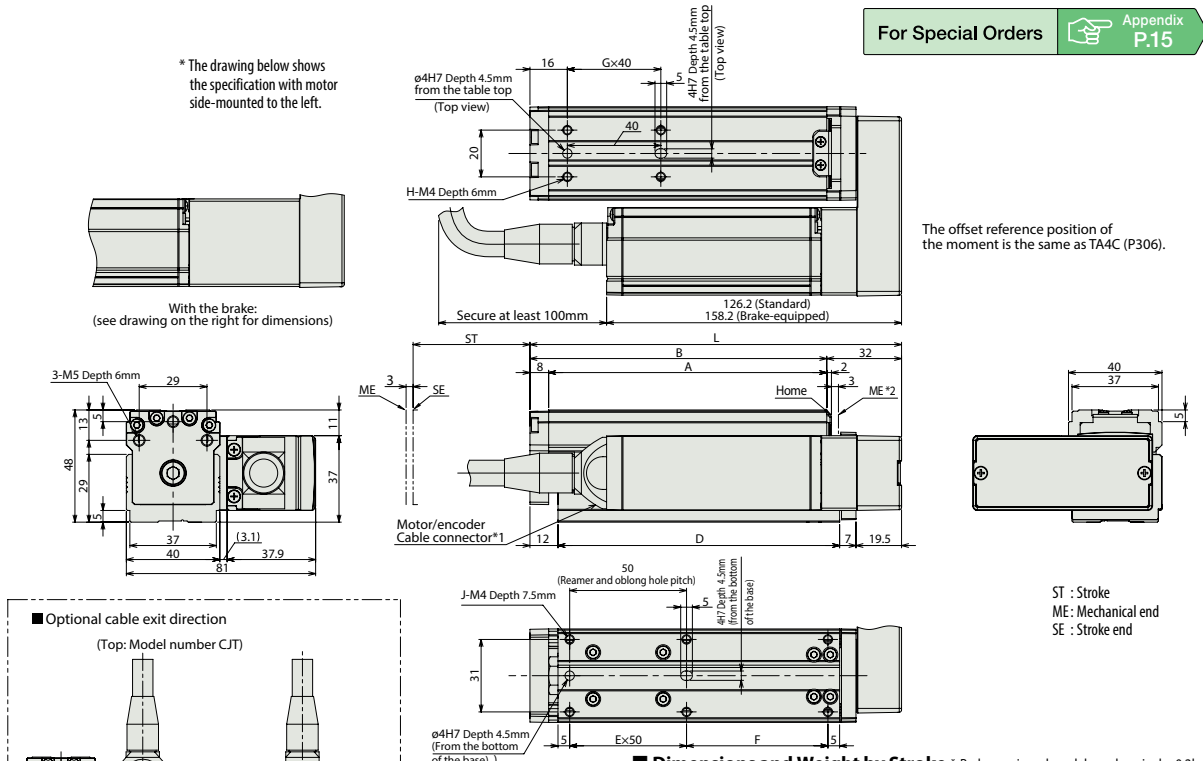


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RCP3-TA4R

Dimensional Drawings

For Special Orders Appendix P.15



(*)1 Connect the motor-encoder integrated cable here. See page A-59 for details on cables.
 (*)2 After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.

■ Dimensions and Weight by Stroke * Brake-equipped models are heavier by 0.2kg.

Stroke	20	30	40	50	60	70	80	90	100
L	129	139	149	159	169	179	189	199	209
A	89	99	109	119	129	139	149	159	169
B	97	107	117	127	137	147	157	167	177
D	90.5	100.5	110.5	120.5	130.5	140.5	150.5	160.5	170.5
E	1	1	1	1	2	2	2	2	2
F	30.5	40.5	50.5	60.5	20.5	30.5	40.5	50.5	60.5
G	1	1	1	1	2	2	2	2	2
H	4	4	4	4	6	6	6	6	6
J	6	6	6	6	8	8	8	8	8
Weight (kg)	0.7	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.0

Applicable Controllers

RCP3 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		PMEC-C-28PI-(I)-2-(II)	Easy-to-use controller, even for beginners	3 points	AC100V AC200V	Refer to P541	—	→ P537
		PSEP-C-28PI-(I)-2-0	Simple controller operable with the same signal as a solenoid valve					→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-(III)~(I)-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	Refer to P572	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-(III)~(V)-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					→ P607
Positioner type High-output specification		PCON-CA-28PI-(I)-2-0	Equipped with a high-output driver Positioner type based on PIO control	512 points	DC24V	Refer to P618	—	→ P623
Pulse-train type High-output specification		PCON-CA-28PI-PL□-2-0	Equipped with a high-output driver Pulse-train input type	(—)				
Field network type High-output specification		PCON-CA-28PI-(V)-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points				
Pulse Train Input Type (Differential Line Driver)		PCON-PL-28PI-(I)-2-0	Pulse train input type with differential line driver support	(—)	DC24V	Refer to P628	—	→ P665
Pulse Train Input Type (Open Collector)		PCON-PO-28PI-(I)-2-0	Pulse train input type with open collector support					
Serial Communication Type		PCON-SE-28PI-N-0-0	Dedicated Serial Communication	64 points	DC24V	Refer to P671	—	→ P665
Program Control Type		PSEL-CS-1-28PI-(I)-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	Refer to P671	—	→ P665

* This is for the single-axis PSEL. * (I) indicates I/O type (NP/PN). * (II) indicates power supply voltage (1: 100V / 2: 100~240V).
 * (III) indicates number of axes (1 to 8). * (V) indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.



RCP3-TA4R 316

- Slider Type
- Mini
- Standard
- Controllers Integrated
- Rod Type
- Mini
- Standard
- Controllers Integrated
- Table/ Arm/ Flat Type
- Mini
- Standard
- Controllers Integrated
- Gripper/ Rotary Type
- Linear Servo Type
- Clean-room Type
- Splash-Proof Type
- Pulse Motor
- Servo Motor (24V)
- Servo Motor (200V)
- Linear Servo Motor

RCP3-TA5R

ROBO Cylinder, Table Type, Side-Mounted motor, Actuator Width 55mm, Pulse Motor, Side-mounted Motor

Model Specification Items	RCP3 — TA5R — I — 35P — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/>
Series	Type — Encoder type — Motor type — Lead — Stroke — Applicable controller — Cable length — Options
I: Incremental * The Simple absolute encoder is also considered type "I".	35P: Pulse motor, 35□ size
10: 10mm 5: 5mm 2.5: 2.5mm	25: 25mm ? 100: 100mm (25mm pitch increments)
	P1: PCON-PL/PO/SE PSEL P3: PCON-CA PMEC/PSEP MSEP
	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).

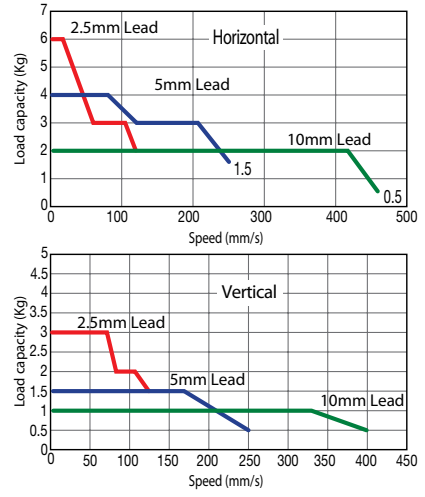
* See page Pre-47 for details on the model descriptions.



Technical References Appendix P.5

- POINT** Notes on selection
- (1) Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
 - (2) Please note that the maximum speed is different when used horizontally versus vertically.
 - (3) 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). This is the upper limit of the acceleration.
 - (4) See page A-71 for details on push motion.

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



Actuator Specifications

Leads and Payloads

Model number	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Stroke (mm)
		Horizontal (kg)	Vertical (kg)		
RCP3-TA5R-I-35P-10-①-②-③-④	10	~2	~1	34	25~200 (every 25mm)
RCP3-TA5R-I-35P-5-①-②-③-④	5	~4	~1.5	68	
RCP3-TA5R-I-35P-2.5-①-②-③-④	2.5	~6	~3	136	

Stroke and Maximum Speed (Unit: mm/s)

Stroke Lead	25~100 (every 25mm)
10	465<400>
5	250
2.5	125

Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options * See page A-71 for details on push motion. * The values enclosed in < > apply to vertical settings.

① Stroke

① Stroke (mm)	Standard price
25	—
50	—
75	—
100	—

③ Cable Length

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

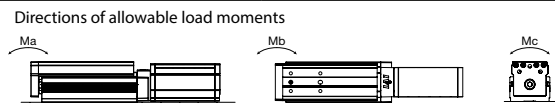
* The standard cable is the motor-encoder integrated robot cable.
* See page A-59 for cables for maintenance.

④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Cable exit direction (top)	CJT	→ A-42	—
Cable exit direction (outside)	CJO	→ A-42	—
Cable exit direction (bottom)	CJB	→ A-42	—
Left-mounted motor (standard)	ML	→ A-52	—
Right-mounted motor	MR	→ A-52	—
Non-motor end specification	NM	→ A-52	—

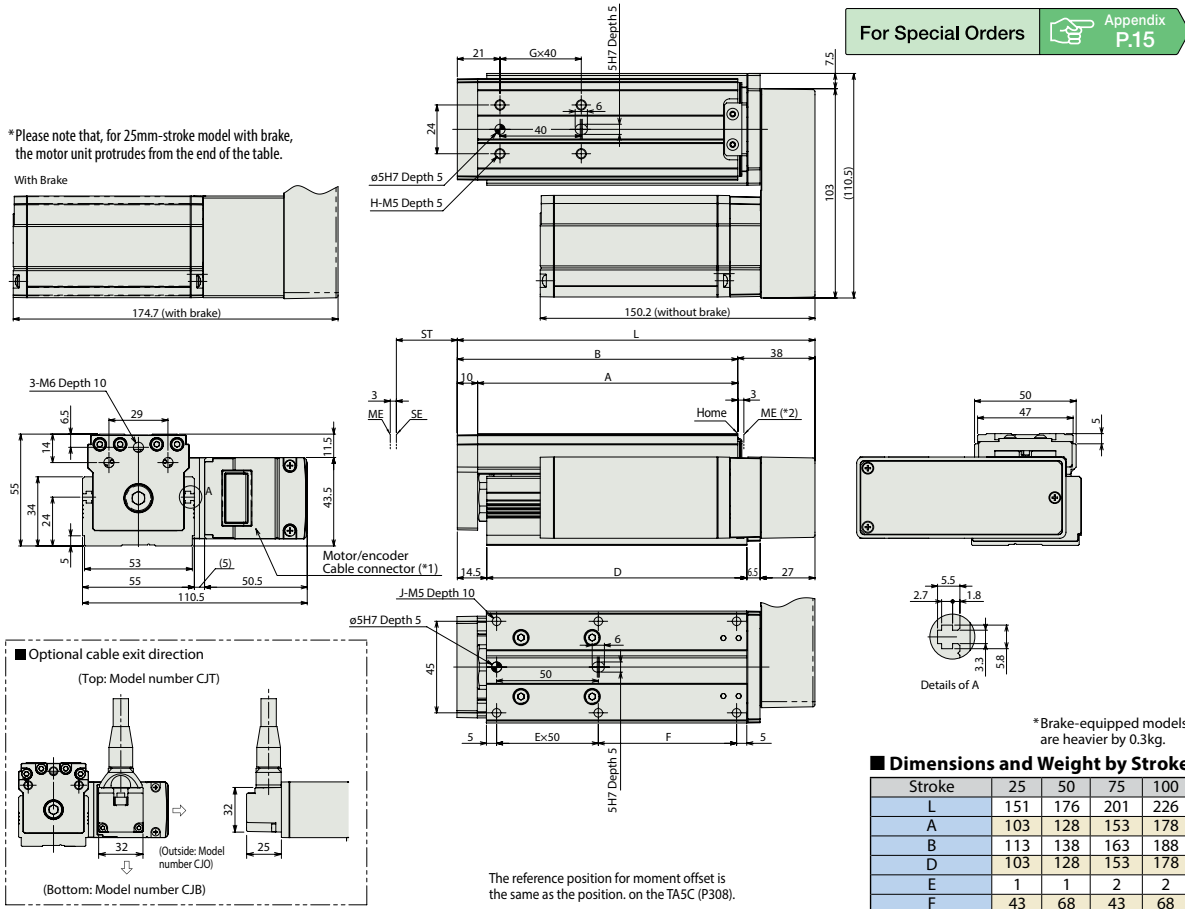
Actuator Specifications

Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, special alumite treated
Allowable static moment	Ma: 25.5 N·m, Mb: 36.5 N·m, Mc: 56.1 N·m
Allowable dynamic moment	Ma: 6.57 N·m, Mb: 9.32 N·m, Mc: 14.32 N·m
Overhang load length	Within the load moment range
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)



317 RCP3-TA5R

Dimensional Drawings



(*1) Connect the motor-encoder integrated cable here. See page A-59 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

■ Dimensions and Weight by Stroke

Stroke	25	50	75	100
L	151	176	201	226
A	103	128	153	178
B	113	138	163	188
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)	1.4	1.6	1.7	1.9

*Brake-equipped models are heavier by 0.3kg.

② Applicable Controllers

RCP3 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		PMEC-C-35PI-①-2-②	Easy-to-use controller, even for beginners	3 points	AC100V AC200V	Refer to P541	—	→ P537
		PSEP-C-35PI-①-2-0	Simple controller operable with the same signal as a solenoid valve					→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-③-④-⑤-⑥-⑦-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	Refer to P572	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-③-④-⑤-⑥-⑦-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					→ P607
Positioner type High-output specification		PCON-CA-35PI-①-2-0	Equipped with a high-output driver Positioner type based on PIO control	512 points	DC24V	Refer to P618	—	→ P607
Pulse-train type High-output specification		PCON-CA-35PI-PL□-2-0	Equipped with a high-output driver Pulse-train input type	(—)				
Field network type High-output specification		PCON-CA-35PI-⑧-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points				
Pulse Train Input Type (Differential Line Driver)		PCON-PL-35PI-①-2-0	Pulse train input type with differential line driver support	(—)	DC24V	Refer to P628	—	→ P623
Pulse Train Input Type (Open Collector)		PCON-PO-35PI-①-2-0	Pulse train input type with open collector support					
Serial Communication Type		PCON-SE-35PI-N-0-0	Dedicated Serial Communication	64 points	DC24V	Refer to P671	—	→ P665
Program Control Type		PSEL-CS-1-35PI-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	Refer to P671	—	→ P665

* This is for the single-axis PSEL. * ① indicates I/O type (NP/PN). * ② indicates power supply voltage (1: 100V / 2: 100~240V).
* ③ indicates number of axes (1 to 8). * ④ indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.

- Slider Type
- Mini
- Standard
- Controllers Integrated
- Rod Type
- Mini
- Standard
- Controllers Integrated
- Table/ Arm/ Flat Type
- Mini
- Standard
- Gripper/ Rotary Type
- Linear Servo Type
- Clean-room Type
- Splash-Proof Type

- Pulse Motor
- Servo Motor (24V)
- Servo Motor (200V)
- Linear Servo Motor

RCP3-TA6R

ROBO Cylinder, Table Type, Actuator Width 65mm, Pulse Motor, Side-mounted Motor

Model Specification Items	RCP3 — TA6R — I — 42P — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/>
Series — Type	Encoder type — Motor type — Lead — Stroke — Applicable controller — Cable length — Options
I: Incremental * The Simple absolute encoder is also considered type "I".	42P: Pulse motor, 42□ size
	Lead: 12: 12mm, 6: 6mm, 3: 3mm
	Stroke: 25: 25mm, 150: 150mm (25mm pitch increments)
	P1: PCON-PL/PO/SE PSEL P3: PCON-CA PMEC/PSEP MSEP
	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-47 for details on the model descriptions.

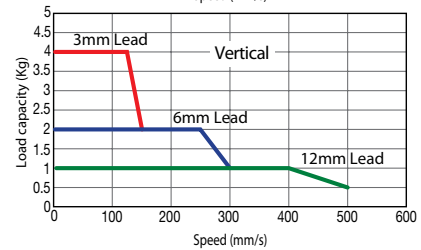
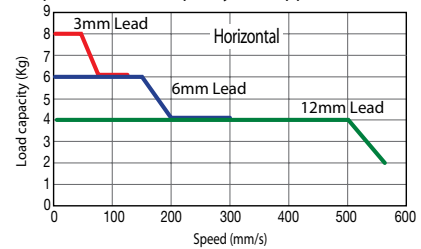


Technical References Appendix P.5

- POINT** Notes on selection
- (1) Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
 - (2) Please note that the maximum speed is different when used horizontally versus vertically.
 - (3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically). This is the upper limit of the acceleration.
 - (4) See page A-71 for details on push motion.

Speed vs. Load Capacity

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



Actuator Specifications

Leads and Payloads

Model number	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Stroke (mm)
		Horizontal (kg)	Vertical (kg)		
RCP3-TA6R-I-42P-12-①-②-③-④	12	~4	~1	60	25~150 (every 25mm)
RCP3-TA6R-I-42P-6-①-②-③-④	6	~6	~2	110	
RCP3-TA6R-I-42P-3-①-②-③-④	3	~8	~4	189	

Stroke and Maximum Speed (Unit: mm/s)

Stroke Lead	25~150 (every 25mm)
12	560<500>
6	300
3	150

Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options * See page A-71 for details on push motion. * The values enclosed in < > apply to vertical settings.

① Stroke

① Stroke (mm)	Standard price
25	—
50	—
75	—
100	—
125	—
150	—

③ Cable Length

Type	Cable symbol	Standard price
Standard (Robot Cables)	P (1m)	—
	S (3m)	—
	M (5m)	—
Special length	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-59 for cables for maintenance.

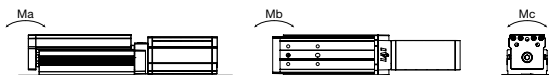
④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Cable exit direction (top)	CJT	→ A-42	—
Cable exit direction (outside)	CJO	→ A-42	—
Cable exit direction (bottom)	CJB	→ A-42	—
Left-mounted motor (standard)	ML	→ A-52	—
Right-mounted motor	MR	→ A-52	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø10mm, rolled C10
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, special alumite treated
Allowable static moment	Ma: 29.4 N·m, Mb: 42.0 N·m, Mc: 74.1 N·m
Allowable dynamic moment	Ma: 7.26 N·m, Mb: 10.3 N·m, Mc: 18.25 N·m
Overhang load length	Within the load moment range
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

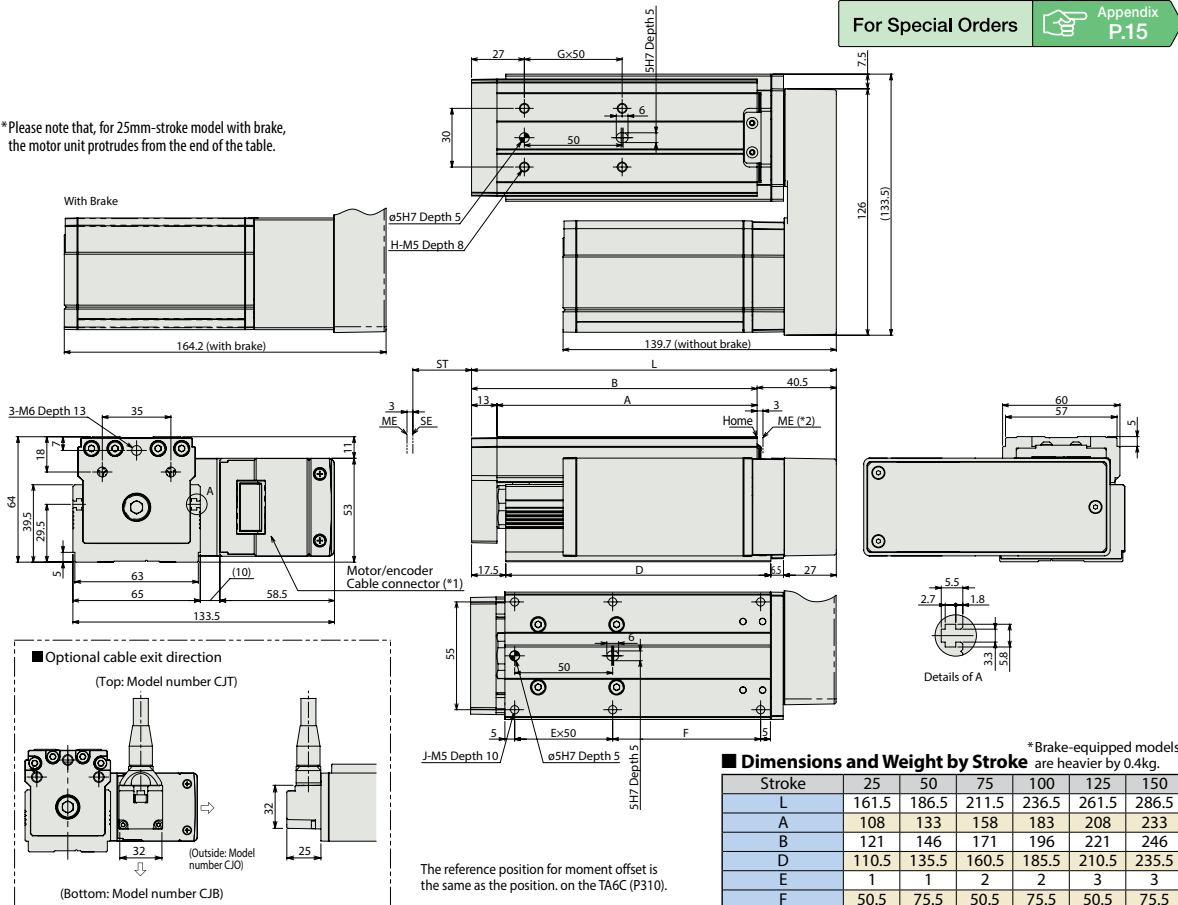
Directions of allowable load moments



319 RCP3-TA6R

Dimensional Drawings

*Please note that, for 25mm-stroke model with brake, the motor unit protrudes from the end of the table.



- (*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables.
- (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.

■ Dimensions and Weight by Stroke * Brake-equipped models are heavier by 0.4kg.

Stroke	25	50	75	100	125	150
L	161.5	186.5	211.5	236.5	261.5	286.5
A	108	133	158	183	208	233
B	121	146	171	196	221	246
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)	2.1	2.3	2.5	2.7	2.9	3.1

② Applicable Controllers

RCP3 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		PMEC-C-42PI-①-2-②	Easy-to-use controller, even for beginners	3 points	AC100V AC200V	Refer to P541	—	→ P537
		PSEP-C-42PI-①-2-0	Simple controller operable with the same signal as a solenoid valve			Refer to P555	—	→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-④-③-①-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	Refer to P572	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-④-③-④-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected				—	→ P607
Positioner type High-output specification		PCON-CA-42PI-①-2-0	Equipped with a high-output driver Positioner type based on PIO control	512 points	DC24V	Refer to P618	—	→ P623
Pulse-train type High-output specification		PCON-CA-42PI-PL□-2-0	Equipped with a high-output driver Pulse-train input type	(—)				
Field network type High-output specification		PCON-CA-42PI-④-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points				
Pulse Train Input Type (Differential Line Driver)		PCON-PL-42PI-①-2-0	Pulse train input type with differential line driver support	(—)	DC24V	Refer to P628	—	→ P623
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-①-2-0	Pulse train input type with open collector support					
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated Serial Communication	64 points	DC24V	Refer to P671	—	→ P665
Program Control Type		PSEL-CS-1-42PI-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	Refer to P671	—	→ P665

* This is for the single-axis PSEL. * ① indicates I/O type (NP/PN). * ② indicates power supply voltage (1: 100V / 2: 100~240V). * ④ indicates number of axes (1 to 8). * ④ indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.

Slider Type

Mini

Standard

Controllers Integrated

Rod Type

Mini

Standard

Controllers Integrated

Table/ Arm/ Flat Type

Mini

Standard

Gripper/ Rotary Type

Linear Servo Type

Clean-room Type

Splash-Proof Type

Pulse Motor

Servo Motor (24V)

Servo Motor (200V)

Linear Servo Motor

RCP3-TA7R

ROBO Cylinder, Table Type, Actuator Width 75mm, Pulse Motor, Side-mounted Motor

Model Specification Items **RCP3** — **TA7R** — **I** — **42P** — — — — —

Series — Type — Encoder type — Motor type — Lead — Stroke — Applicable controller — Cable length — Options

I: Incremental 42P: Pulse motor, 42□ size
 * The Simple absolute encoder is also considered type "I".

12: 12mm 25: 25mm P1: PCON-PL/PO/SE PSEL
 6: 6mm ?
 3: 3mm 200: 200mm (25mm pitch increments) P3: PCON-CA PMEC/PSEP MSEP

N: None See Options below.
 P: 1m *Be sure to specify which side the motor is to be mounted (ML/MR).
 S: 3m
 M: 5m
 X□□: Custom Length

* See page Pre-47 for details on the model descriptions.

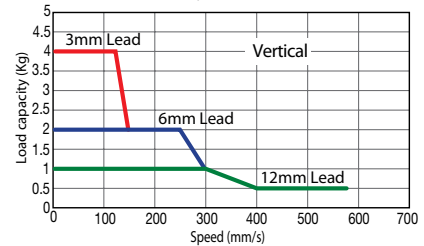
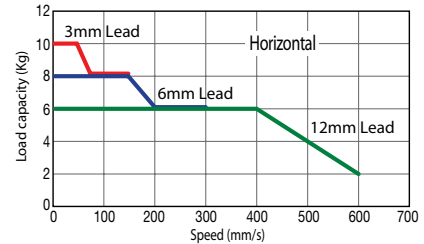


Technical References Appendix P.5

- POINT** Notes on selection
- (1) Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
 - (2) Please note that the maximum speed is different when used horizontally versus vertically.
 - (3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically). This is the upper limit of the acceleration.
 - (4) See page A-71 for details on push motion.

Speed vs. Load Capacity

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



Actuator Specifications

Leads and Payloads

Model number	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Stroke (mm)
		Horizontal (kg)	Vertical (kg)		
RCP3-TA7R-I-42P-12-①-②-③-④	12	~6	~1	60	25~200 (every 25mm)
RCP3-TA7R-I-42P-6-①-②-③-④	6	~8	~2	110	
RCP3-TA7R-I-42P-3-①-②-③-④	3	~10	~4	189	

Stroke and Maximum Speed (Unit: mm/s)

Stroke Lead	25~200 (every 25mm)
12	600<580>
6	300
3	150

Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options * See page A-71 for details on push motion. * The values enclosed in < > apply to vertical settings.

① Stroke

① Stroke (mm)	Standard price
25	—
50	—
75	—
100	—
125	—
150	—
175	—
200	—

③ Cable Length

Type	Cable symbol	Standard price
Standard (Robot Cables)	P (1m)	—
	S (3m)	—
	M (5m)	—
Special length	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-59 for cables for maintenance.

④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Cable exit direction (top)	CJT	→ A-42	—
Cable exit direction (outside)	CJO	→ A-42	—
Cable exit direction (bottom)	CJB	→ A-42	—
Left-mounted motor (standard)	ML	→ A-52	—
Right-mounted motor	MR	→ A-52	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

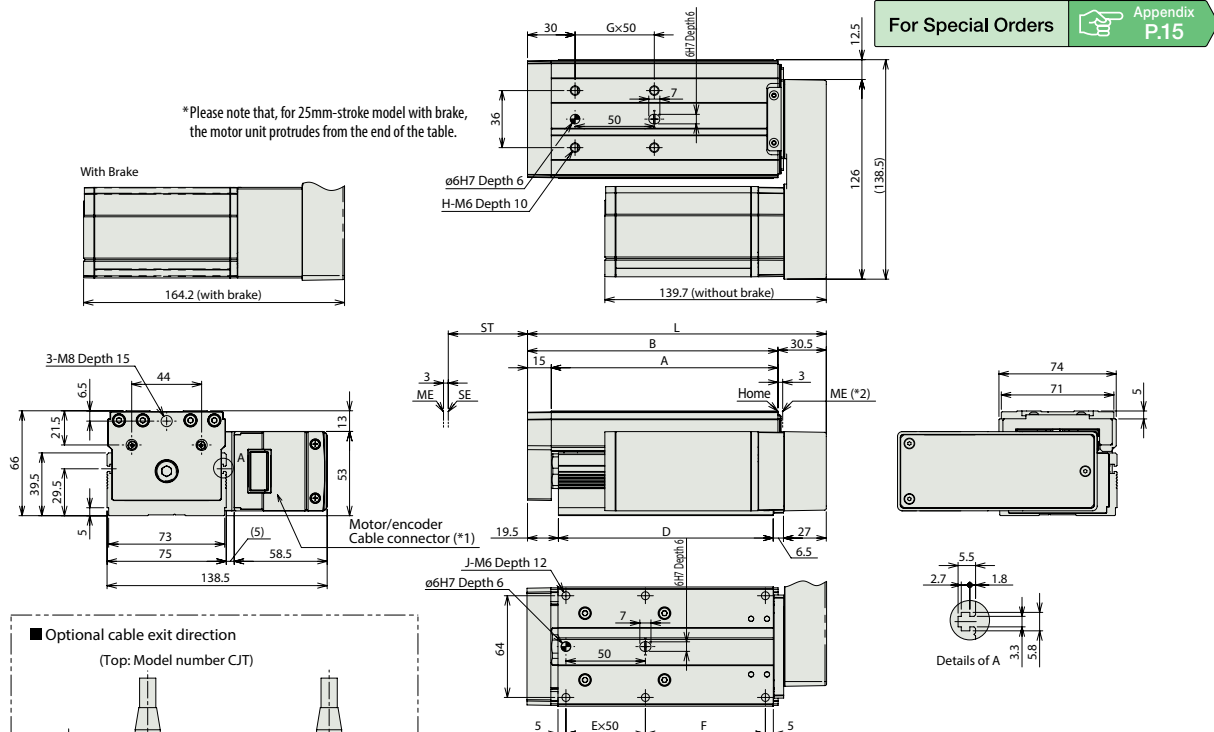
Item	Description
Drive System	Ball screw, ø10mm, rolled C10
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, special alumite treated
Allowable static moment	Ma: 42.6 N·m, Mb: 60.8 N·m, Mc: 123.2 N·m
Allowable dynamic moment (*)	Ma: 9.91 N·m, Mb: 14.13 N·m, Mc: 28.65 N·m
Overhang load length	Within the load moment range
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

Directions of allowable load moments



321 RCP3-TA7R

Dimensional Drawings



The reference position for moment offset is the same as the position on the TA7C (P312).

Dimensions and Weight by Stroke

*Brake-equipped models are heavier by 0.4kg.

Stroke	25	50	75	100	125	150	175	200
L	163.5	188.5	213.5	238.5	263.5	288.5	313.5	338.5
A	118	143	168	193	218	243	268	293
B	133	158	183	208	233	258	283	308
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)	2.4	2.6	2.8	3.1	3.3	3.5	3.7	3.9

- (*1) Connect the motor-encoder integrated cable here. See page A-59 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

Applicable Controllers

RCP3 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		PMEC-C-42PI-①-2-②	Easy-to-use controller, even for beginners	3 points	AC100V AC200V	Refer to P541	—	→ P537
		PSEP-C-42PI-①-2-0	Simple controller operable with the same signal as a solenoid valve					→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-③-④-⑤-⑥-⑦-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	Refer to P572	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-③-④-⑤-⑥-⑦-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					→ P607
Positioner type High-output specification		PCON-CA-42PI-①-2-0	Equipped with a high-output driver Positioner type based on PIO control	512 points	DC24V	Refer to P618	—	→ P623
Pulse-train type High-output specification		PCON-CA-42PI-PL□-2-0	Equipped with a high-output driver Pulse-train input type	(—)				
Field network type High-output specification		PCON-CA-42PI-⑦-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points				
Pulse Train Input Type (Differential Line Driver)		PCON-PL-42PI-①-2-0	Pulse train input type with differential line driver support	(—)	DC24V	Refer to P628	—	→ P665
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-①-2-0	Pulse train input type with open collector support					
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated Serial Communication	64 points	DC24V	Refer to P671	—	→ P665
Program Control Type		PSEL-CS-1-42PI-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	Refer to P671	—	→ P665

* This is for the single-axis PSEL. * ① indicates I/O type (NP/PN). * ② indicates power supply voltage (1: 100V / 2: 100~240V). * ③ indicates number of axes (1 to 8). * ④ indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.

- Slider Type
- Mini
- Standard
- Controllers Integrated
- Rod Type
- Mini
- Standard
- Controllers Integrated
- Table/ Arm/ Flat Type
- Mini
- Standard
- Gripper/ Rotary Type
- Linear Servo Type
- Clean-room Type
- Splash-Proof Type
- Pulse Motor
- Servo Motor (24V)
- Servo Motor (200V)
- Linear Servo Motor

RCA2-TCA3NA

Robo Cylinder, Mini Table Type, Short-Length Compact Type, Actuator Width 32mm, 24V Servo Motor, Ball Screw Specification/Lead Screw Specification

Model Specification Items	RCA2 — TCA3NA — I — 10	—	—	—	—	—	—	—	—
	Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
			I: Incremental * The Simple absolute encoder is also considered type "I".	10: 10W Servo motor	4: Ball screw 4mm 2: Ball screw 2mm 1: Ball screw 1mm 4S: Lead screw 4mm 2S: Lead screw 2mm 1S: Lead screw 1mm	30: 30mm 50: 50mm	A1: ACON ASEL A3: AMEC ASEP MSEP	N: None P: 1m S: 3m M: 5m X□□: Custom Length	See options below.

* See page Pre-47 for details on the model descriptions.



Power-saving

Technical References Appendix P.5

- POINT** Notes on selection
- (1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for 1mm-Lead, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.
 - (2) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.
 - (3) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Feed screw	Lead (mm)	Max. Load Horizontal (kg)	Capacity Vertical (kg)	Rated thrust (N)	Positioning Repeatability (mm)	Stroke (mm)
RCA2-TCA3NA-I-10-4-①-②-③-④	10	Ball screw	4	0.75	0.25	42.7	±0.02	30 50
RCA2-TCA3NA-I-10-2-①-②-③-④			2	1.5	0.5	85.5		
RCA2-TCA3NA-I-10-1-①-②-③-④			1	3	1	170.9		
RCA2-TCA3NA-I-10-4S-①-②-③-④	10	Lead screw	4	0.25	0.125	25.1	±0.05	30 50
RCA2-TCA3NA-I-10-2S-①-②-③-④			2	0.5	0.25	50.3		
RCA2-TCA3NA-I-10-1S-①-②-③-④			1	1	0.5	100.5		

Stroke and Maximum Speed

Lead	Stroke	30 (mm)	50 (mm)
		Ball screw	
Ball screw	4	200	
	2	100	
	1	50	
Lead screw	4	200	
	2	100	
	1	50	

(Unit: mm/s)

Code explanation ① Stroke ② Applicable controller ③ Cable length ④ Options *See page A-71 for details on push motion.

① Stroke

Stroke (mm)	Standard price	
	Ball screw	Lead screw
30	—	—
50	—	—

③ Cable Length

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

* The standard cable for the RCA2 is the robot cable.
* See page A-59 for cables for maintenance.

④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Connector cable exits from the left	K1	→ A-51	—
Connector cable exits from the front	K2	→ A-51	—
Connector cable exits from the right	K3	→ A-51	—
Power-saving specification	LA	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw/Lead screw, ø4mm, rolled C10
Lost Motion	Ball screw: 0.1mm or less
	Lead screw: 0.3mm or less (initial value)
Frame	Material: Aluminum, white alumite treated
Allowable dynamic moment (Note)	Ma: 9.9 N·m, Mb: 9.9 N·m, Mc: 3.3 N·m
Allowable static moment	Ma: 14.1 N·m, Mb: 14.1 N·m, Mc: 6.7 N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification
	Ball screw specification

(Note) For cases when the guide service life has been set to 5,000km.
(*) For 1mm-lead: 3,000km or 50 million cycles.

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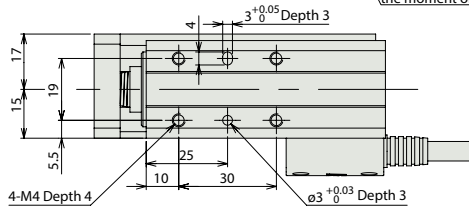
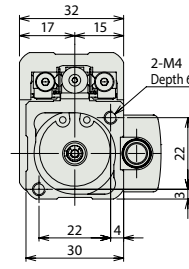
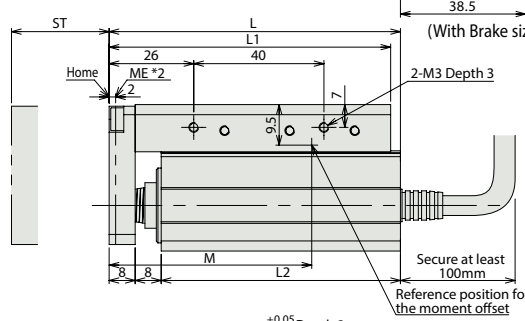
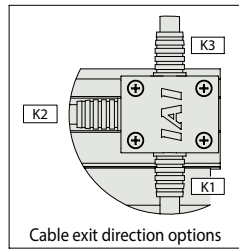
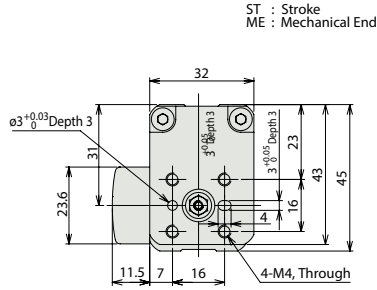
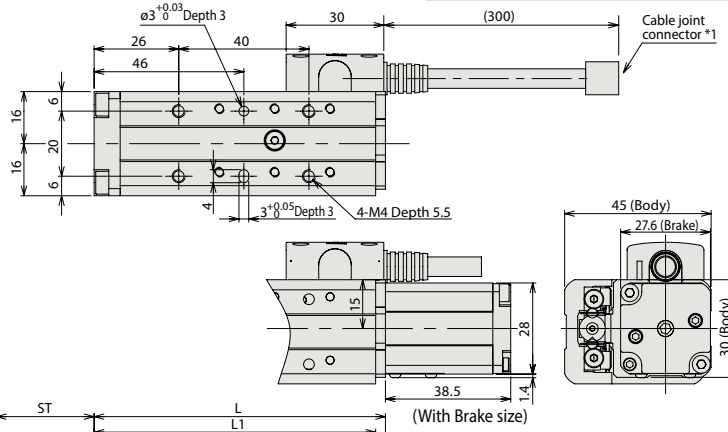
RCA2-TCA3NA

Dimensional Drawings

For Special Orders Appendix P.15

- (*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables.
- (*2) During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end.

Note:
Please note that the center of the body mounting surface (bottom face) and the center of the mounting surface on the table are not in the same position.



*Brake-equipped models are heavier by 0.1kg.

Dimensions and Weight by Stroke

Stroke	30	50
L	89.5	109.5
L1	86.5	106.5
L2	73.5	93.5
M	64	84
Weight (kg)	0.37	0.44

Applicable Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application. * ACON-CY also can be used.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		AMEC-C-10I①-②-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P537
		ASEP-C-10I①-②-2-0	Simple controller operable with the same signal as a solenoid valve					→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-③-④-⑤-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	(Standard) 1.3A rated 4.4A max.	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-③-④-⑤-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					
Positioner type		ACON-C-10I①-②-2-0	Positioning is possible for up to 512 points	512 points	DC24V	(Standard) 1.3A rated 4.4A max.	—	—
Safety-Compliant Positioner Type		ACON-CG-10I①-②-2-0						
Pulse Train Input Type (Differential Line Driver)		ACON-PL-10I①-②-2-0	Pulse train input type with differential line driver support	(—)	DC24V	(Power-saving) 1.3A rated 2.5A max.	—	→ P631
Pulse Train Input Type (Open Collector)		ACON-PO-10I①-②-2-0						→ P631
Serial Communication Type		ACON-SE-10I①-N-0-0	Dedicated Serial Communication	64 points	DC24V	—	—	—
Program Control Type		ASEL-CS-1-10I①-②-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	—	—	→ P675

* This is for the single-axis ASEL. * Enter the code "LA" in ① when the power-saving specification is specified. * ① indicates I/O type (NP/PN). * ③ indicates number of axes (1 to 8). * ④ indicates field network specification symbol.

Slider Type

Mini

Standard

Controllers Integrated

Rod Type

Mini

Standard

Controllers Integrated

Table/ Arm/ Flat Type

Mini

Standard

Gripper/ Rotary Type

Linear Servo Type

Clean-room Type

Splash-Proof Type

Pulse Motor

Servo Motor (24V)

Servo Motor (200V)

Linear Servo Motor

RCA2-TCA4NA

Robo Cylinder, Mini Table Type, Short-Length Compact Type, Actuator Width 36mm, 24V Servo Motor, Ball Screw Specification/Lead Screw Specification

Model Specification Items	RCA2 — TCA4NA — I — 20	—	—	—	—	—	—	—	—
Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options	
I: Incremental * The Simple absolute encoder is also considered type "I".	20:20W Servo motor	6: Ball screw 6mm 4: Ball screw 4mm 2: Ball screw 2mm 6S: Lead screw 6mm 4S: Lead screw 4mm 2S: Lead screw 2mm		30: 30mm 50: 50mm	A1: ACON ASEL A3: AMEC ASEP MSEP	N: None P: 1m S: 3m M: 5m X□□: Custom Length	See options below.		

* See page Pre-47 for details on the model descriptions.



Power-saving



Technical References Appendix P.5

- POINT** Notes on selection
- (1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for 2mm-lead, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.
 - (2) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.
 - (3) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Feed screw	Lead (mm)	Max. Load Capacity Horizontal (kg)	Vertical (kg)	Rated thrust (N)	Positioning Repeatability (mm)	Stroke (mm)
RCA2-TCA4NA-I-20-6-①-②-③-④	20	Ball screw	6	2	0.5	33.8	±0.02	30 50
RCA2-TCA4NA-I-20-4-①-②-③-④			4	3	0.75	50.7		
RCA2-TCA4NA-I-20-2-①-②-③-④			2	6	1.5	101.5		
RCA2-TCA4NA-I-20-6S-①-②-③-④	20	Lead screw	6	0.25	0.125	19.9	±0.05	30 50
RCA2-TCA4NA-I-20-4S-①-②-③-④			4	0.5	0.25	29.8		
RCA2-TCA4NA-I-20-2S-①-②-③-④			2	1	0.5	59.7		

Stroke and Maximum Speed

Stroke Lead	30 (mm)	50 (mm)
	Ball screw	270<220>
Lead screw	200	100
	220	300
	200	100

Code explanation ① Stroke ② Applicable controller ③ Cable length ④ Options *See page A-71 for details on push motion. *The values enclosed in < > apply to vertical settings. (Unit: mm/s)

① Stroke

Stroke (mm)	Standard price	
	Ball screw	Lead screw
30	—	—
50	—	—

③ Cable Length

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

* The standard cable for the RCA2 is the robot cable.
* See page A-59 for cables for maintenance.

④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Connector cable exits from the left	K1	→ A-51	—
Connector cable exits from the front	K2	→ A-51	—
Connector cable exits from the right	K3	→ A-51	—
Power-saving specification	LA	→ A-52	—

Actuator Specifications

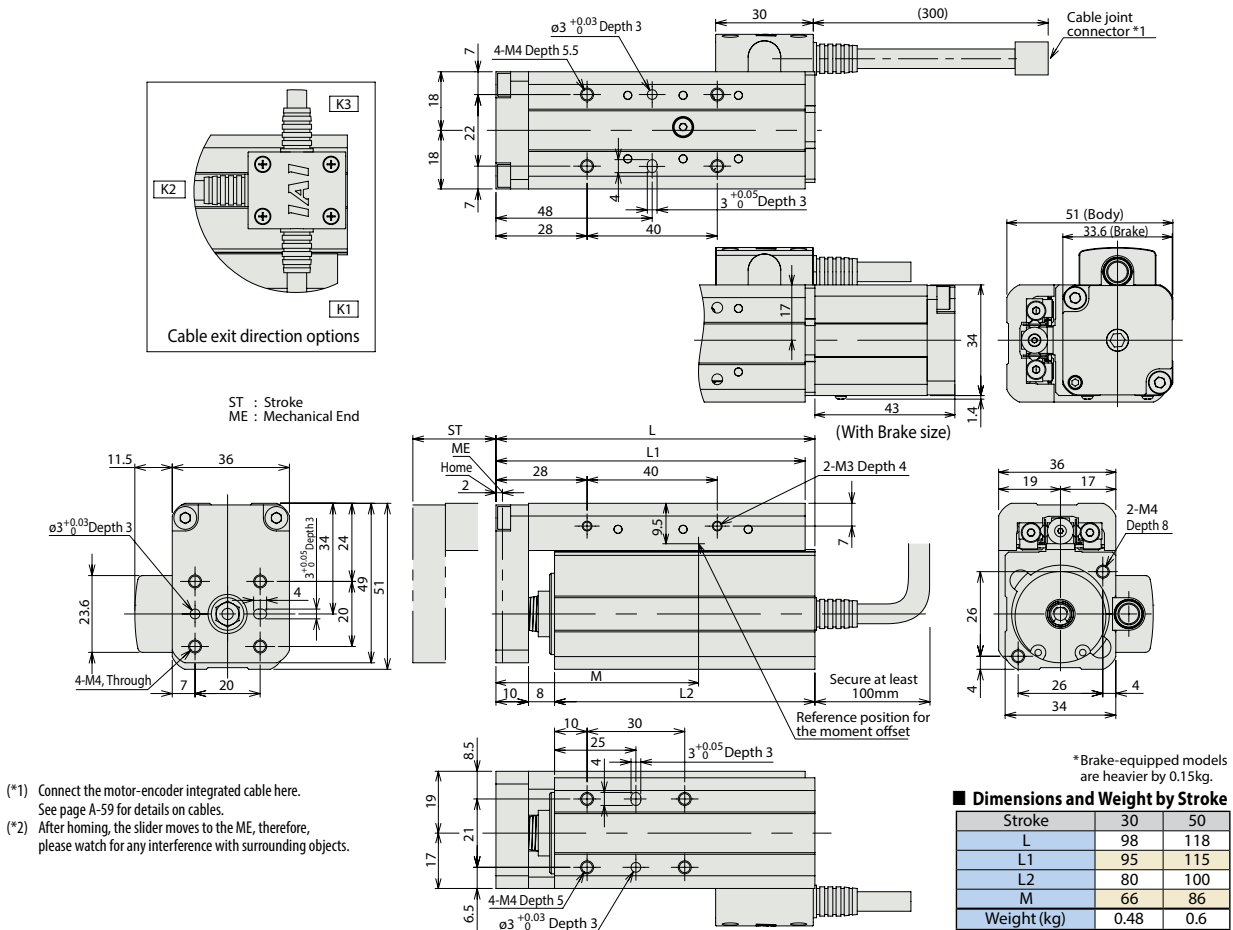
Item	Description
Drive System	Ball screw/Lead screw, ø6mm, rolled C10
Lost Motion	Ball screw: 0.1mm or less
	Lead screw: 0.3mm or less (initial value)
Frame	Material: Aluminum, white alumite treated
Allowable dynamic moment (Note)	Ma: 9.9 N·m, Mb: 9.9 N·m, Mc: 3.3 N·m
Allowable static moment	Ma: 14.1 N·m, Mb: 14.1 N·m, Mc: 6.7 N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification
	Ball screw specification

(Note) For cases when the guide service life has been set to 5,000km.

325 RCA2-TCA4NA

Dimensional Drawings

For Special Orders Appendix P.15



Applicable Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application. * ACON-CY also can be used.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		AMEC-C-20I①-②-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P537
		ASEP-C-20I①-②-2-0	Simple controller operable with the same signal as a solenoid valve					→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-③-④-⑤-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-③-④-⑤-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					
Positioner type		ACON-C-20I①-②-2-0	Positioning is possible for up to 512 points	512 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	—
Safety-Compliant Positioner Type		ACON-CG-20I①-②-2-0						
Pulse Train Input Type (Differential Line Driver)		ACON-PL-20I①-②-2-0	Pulse train input type with differential line driver support	(—)	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P631
Pulse Train Input Type (Open Collector)		ACON-PO-20I①-②-2-0	Pulse train input type with open collector support					
Serial Communication Type		ACON-SE-20I①-N-0-0	Dedicated Serial Communication	64 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	—
Program Control Type		ASEL-CS-1-20I①-②-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P675

* This is for the single-axis ASEL. * Enter the code "LA" in ① when the power-saving specification is specified. * ① indicates I/O type (NP/PN).
* ③ indicates number of axes (1 to 8). * ⑤ indicates field network specification symbol.

Slider Type

Mini

Standard

Controllers Integrated

Rod Type

Mini

Standard

Controllers Integrated

Table/Arm/Flat Type

Mini

Standard

Gripper/Rotary Type

Linear Servo Type

Clean-room Type

Splash-Proof Type

Pulse Motor

Servo Motor (24V)

Servo Motor (200V)

Linear Servo Motor

RCA2-TWA3NA

Robo Cylinder, Mini Table Type, Short-Length Wide Type, Actuator Width 50mm, 24V Servo Motor, Ball Screw Specification/Lead Screw Specification

Model Specification Items	RCA2 — TWA3NA — I — 10	—	—	—	—	—	—	—	—
Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options	
I: Incremental	10:10W Servo motor	4: Ball screw 4mm 2: Ball screw 2mm 1: Ball screw 1mm 4S: Lead screw 4mm 2S: Lead screw 2mm 1S: Lead screw 1mm				A1: ACON ASEL A3: AMEC ASEP MSEP	N: None P: 1m S: 3m M: 5m X□□: Custom Length	See options below.	

* See page Pre-47 for details on the model descriptions.



Power-saving

Technical References Appendix P.5

- POINT**
Notes on selection
- (1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for 1mm-lead, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.
 - (2) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.
 - (3) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Feed screw	Lead (mm)	Max. Load Capacity Horizontal (kg) Vertical (kg)	Rated thrust (N)	Positioning Repeatability (mm)	Stroke (mm)
RCA2-TWA3NA-I-10-4-①-②-③-④	10	Ball screw	4	0.75 0.25	42.7	±0.02	30 50
RCA2-TWA3NA-I-10-2-①-②-③-④			2	1.5 0.5	85.5		
RCA2-TWA3NA-I-10-1-①-②-③-④			1	3 1	170.9		
RCA2-TWA3NA-I-10-4S-①-②-③-④	10	Lead screw	4	0.25 0.125	25.1	±0.05	30 50
RCA2-TWA3NA-I-10-2S-①-②-③-④			2	0.5 0.25	50.3		
RCA2-TWA3NA-I-10-1S-①-②-③-④			1	1 0.5	100.5		

Stroke and Maximum Speed

Stroke Lead	Stroke	30 (mm)	50 (mm)
	Ball screw	4	200
2		100	
1		50	
Lead screw	4	200	
	2	100	
	1	50	

Code explanation ① Stroke ② Applicable controller ③ Cable length ④ Options *See page A-71 for details on push motion. * The values enclosed in < > apply to vertical settings. (Unit: mm/s)

① Stroke

Stroke (mm)	Standard price	
	Ball screw	Lead screw
30	—	—
50	—	—

③ Cable Length

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

* The standard cable for the RCA2 is the robot cable.
* See page A-59 for cables for maintenance.

④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Connector cable exits from the left	K1	→ A-51	—
Connector cable exits from the front	K2	→ A-51	—
Connector cable exits from the right	K3	→ A-51	—
Power-saving specification	LA	→ A-52	—

Actuator Specifications

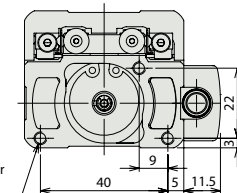
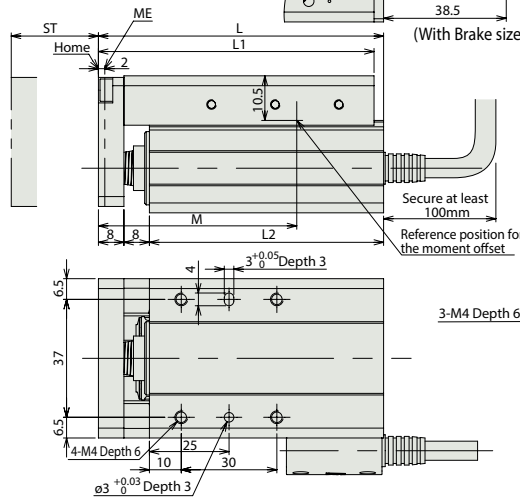
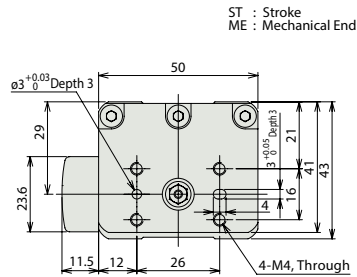
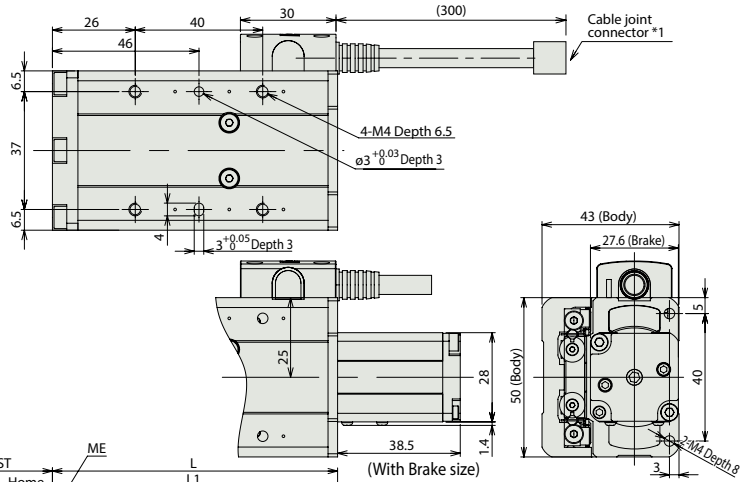
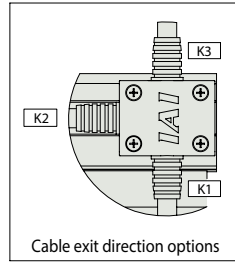
Item	Description
Drive System	Ball screw/Lead screw, ø4mm, rolled C10
Lost Motion	Ball screw: 0.1mm or less
	Lead screw: 0.3mm or less (initial value)
Frame	Material: Aluminum, white alumite treated
Allowable dynamic moment (Note)	Ma: 9.9 N·m, Mb: 9.9 N·m, Mc: 9.4 N·m
Allowable static moment	Ma: 14.1 N·m, Mb: 14.1 N·m, Mc: 19.1 N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification
	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles
	Ball screw specification
	5,000km or 50 million cycles

(Note) For cases when the guide service life has been set to 5,000km.
(*) For 1mm-lead: 3,000km or 50 million cycles.

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Dimensional Drawings

For Special Orders Appendix P.15



- (*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables.
- (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.

* Brake-equipped models are heavier by 0.1kg.

Dimensions and Weight by Stroke

Stroke	30	50
L	89.5	109.5
L1	86.5	106.5
L2	73.5	93.5
M	64	84
Weight (kg)	0.52	0.58

Applicable Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application. * ACON-CY also can be used.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		AMEC-C-10I①-②-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P537
		ASEP-C-10I①-②-2-0	Simple controller operable with the same signal as a solenoid valve					→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-③-④-⑤-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-③-④-⑤-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					
Positioner type		ACON-C-10I①-②-2-0	Positioning is possible for up to 512 points	512 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	—
Safety-Compliant Positioner Type		ACON-CG-10I①-②-2-0						
Pulse Train Input Type (Differential Line Driver)		ACON-PL-10I①-②-2-0	Pulse train input type with differential line driver support	(—)	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P631
Pulse Train Input Type (Open Collector)		ACON-PO-10I①-②-2-0	Pulse train input type with open collector support					
Serial Communication Type		ACON-SE-10I①-N-0-0	Dedicated Serial Communication	64 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	—
Program Control Type		ASEL-CS-1-10I①-②-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points				

* This is for the single-axis ASEL. * Enter the code "LA" in ① when the power-saving specification is specified. * ① indicates I/O type (NP/PN).
* ③ indicates number of axes (1 to 8). * ④ indicates field network specification symbol.

- Slider Type
- Mini
- Standard
- Controllers Integrated
- Rod Type
- Mini
- Standard
- Controllers Integrated
- Table/Arm/Flat Type
- Mini
- Standard
- Gripper/Rotary Type
- Linear Servo Type
- Clean-room Type
- Splash-Proof Type
- Pulse Motor
- Servo Motor (24V)
- Servo Motor (200V)
- Linear Servo Motor

RCA2-TWA4NA

Robo Cylinder, Mini Table Type, Short-Length Wide Type, Actuator Width 58mm, 24V Servo Motor, Ball Screw Specification/Lead Screw Specification

Model Specification Items	RCA2 — TWA4NA — I — 20	—	—	—	—	—	—	—	—
Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options	
I: Incremental	20:20W Servo motor	6: Ball screw 6mm 4: Ball screw 4mm 2: Ball screw 2mm 6S: Lead screw 6mm 4S: Lead screw 4mm 2S: Lead screw 2mm				A1: ACON ASEL A3: AMEC ASEP MSEP	N: None P: 1m S: 3m M: 5m X□□: Custom Length	See options below.	

* See page Pre-47 for details on the model descriptions.



Power-saving



Technical References Appendix P.5

- POINT** Notes on selection
- The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for 2mm-lead, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.
 - If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.
 - See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Feed screw	Lead (mm)	Max. Load Capacity Horizontal (kg) Vertical (kg)	Rated thrust (N)	Positioning Repeatability (mm)	Stroke (mm)
RCA2-TWA4NA-I-20-6-①-②-③-④	20	Ball screw	6	2 0.5	33.8	±0.02	30 50
RCA2-TWA4NA-I-20-4-①-②-③-④			4	3 0.75	50.7		
RCA2-TWA4NA-I-20-2-①-②-③-④			2	6 1.5	101.5		
RCA2-TWA4NA-I-20-6S-①-②-③-④	20	Lead screw	6	0.25 0.125	19.9	±0.05	30 50
RCA2-TWA4NA-I-20-4S-①-②-③-④			4	0.5 0.25	29.8		
RCA2-TWA4NA-I-20-2S-①-②-③-④			2	1 0.5	59.7		

Stroke and Maximum Speed

	Stroke Lead	30 (mm)		50 (mm)	
		Stroke	Speed	Stroke	Speed
Ball screw	6	270<220>	300		
	4	200			
	2	100			
Lead screw	6	220	300		
	4	200			
	2	100			

Code explanation ① Stroke ② Applicable controller ③ Cable length ④ Options *See page A-71 for details on push motion. *The values enclosed in < > apply to vertical settings. (Unit: mm/s)

① Stroke

Stroke (mm)	Standard price	
	Ball screw	Lead screw
30	—	—
50	—	—

③ Cable Length

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

* The standard cable for the RCA2 is the robot cable.
* See page A-59 for cables for maintenance.

④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Connector cable exits from the left	K1	→ A-51	—
Connector cable exits from the front	K2	→ A-51	—
Connector cable exits from the right	K3	→ A-51	—
Power-saving specification	LA	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw/Lead screw, ø6mm, rolled C10
Lost Motion	Ball screw: 0.1mm or less Lead screw: 0.3mm or less (initial value)
Frame	Material: Aluminum, white alumite treated
Allowable dynamic moment (Note)	Ma: 9.9 N·m, Mb: 9.9 N·m, Mc: 12.2 N·m
Allowable static moment	Ma: 14.1 N·m, Mb: 14.1 N·m, Mc: 24.8 N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification
	Ball screw specification
	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles 5,000km or 50 million cycles

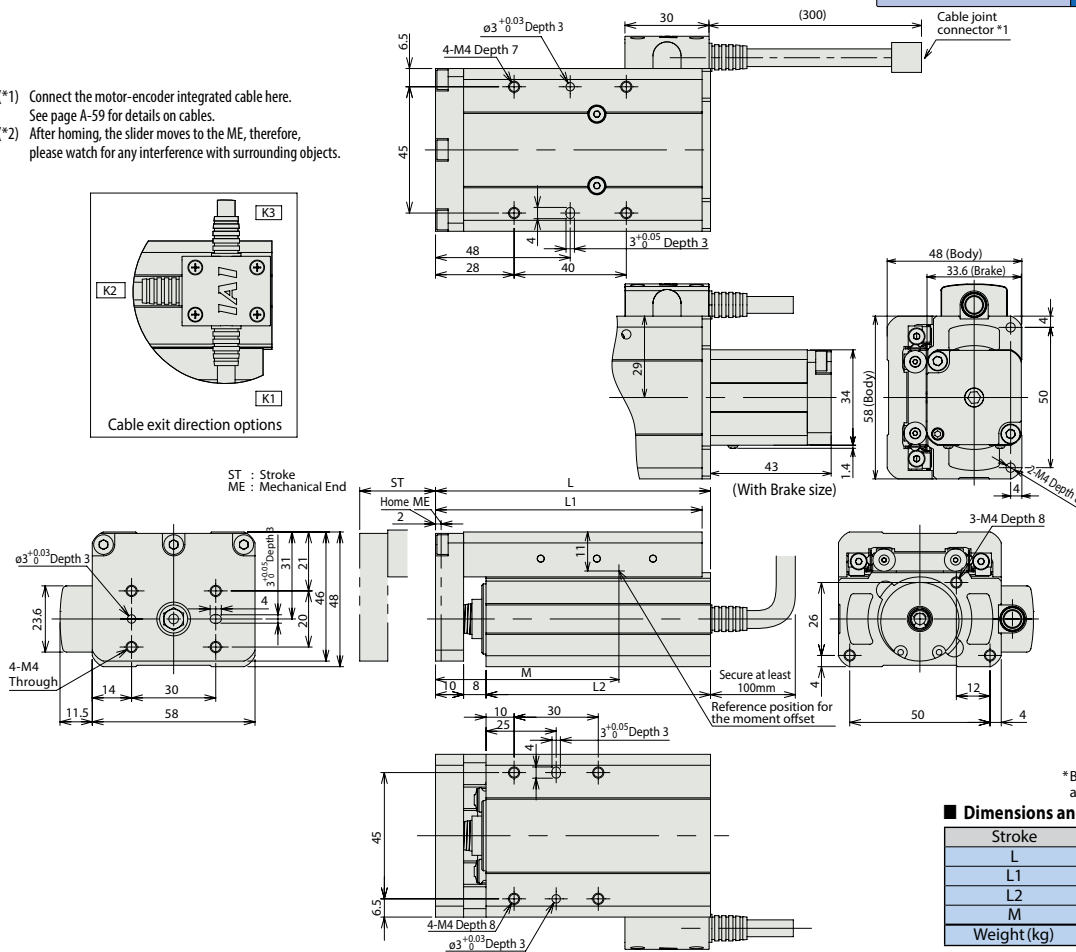
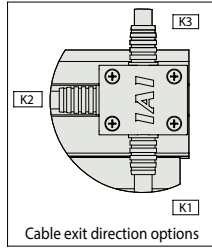
(Note) For cases when the guide service life has been set to 5,000km.

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Dimensional Drawings

For Special Orders Appendix P.15

- (*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables.
- (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.



Dimensions and Weight by Stroke

Stroke	30	50
L	98	118
L1	95	115
L2	80	100
M	66	86
Weight (kg)	0.65	0.77

* Brake-equipped models are heavier by 0.15kg.

Applicable Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application. * ACON-CY also can be used.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		AMEC-C-20I①-②-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P537
		ASEP-C-20I①-②-2-0	Simple controller operable with the same signal as a solenoid valve					→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-③-④-⑤-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-③-④-⑤-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					
Positioner type		ACON-C-20I①-②-2-0	Positioning is possible for up to 512 points	512 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P631
Safety-Compliant Positioner Type		ACON-CG-20I①-②-2-0						
Pulse Train Input Type (Differential Line Driver)		ACON-PL-20I①-②-2-0	Pulse train input type with differential line driver support	(—)	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P631
Pulse Train Input Type (Open Collector)		ACON-PO-20I①-②-2-0						
Serial Communication Type		ACON-SE-20I①-N-0-0	Dedicated Serial Communication	64 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P675
Program Control Type		ASEL-CS-1-20I①-②-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P675

* This is for the single-axis ASEL. * Enter the code "LA" in ① when the power-saving specification is specified. * ① indicates I/O type (NP/PN).
* ③ indicates number of axes (1 to 8). * ④ indicates field network specification symbol.



RCA2-TWA4NA

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- Slider Type
- Mini
- Standard
- Controllers Integrated
- Rod Type
- Mini
- Standard
- Controllers Integrated
- Table/ Arm/ Flat Type
- Mini
- Standard
- Gripper/ Rotary Type
- Linear Servo Type
- Clean-room Type
- Splash-Proof Type
- Pulse Motor
- Servo Motor (24V)
- Servo Motor (200V)
- Linear Servo Motor

RCA2-TFA3NA

Robo Cylinder, Mini Table Type, Short-Length Flat Type, Actuator Width 61 mm, 24V Servo Motor, Ball Screw Specification/Lead Screw Specification

Model Specification Items	RCA2 — TFA3NA — I — 10	—	—	—	—	—	—	—	—
Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options	
I: Incremental * The Simple absolute encoder is also considered type "I".	10:10W Servo motor	4: Ball screw 4mm 2: Ball screw 2mm 1: Ball screw 1mm 4S: Lead screw 4mm 2S: Lead screw 2mm 1S: Lead screw 1mm		30: 30mm 50: 50mm	A1: ACON ASEL A3: AMEC ASEP MSEP	N: None P: 1m S: 3m M: 5m X□□: Custom Length	See options below.		

* See page Pre-47 for details on the model descriptions.



Power-saving

Technical References Appendix P.5



- (1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for 1mm-lead, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.
- (2) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.
- (3) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Feed screw	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Positioning Repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
RCA2-TFA3NA-I-10-4-①-②-③-④	10	Ball screw	4	0.75	0.25	42.7	±0.02	30 50
RCA2-TFA3NA-I-10-2-①-②-③-④			2	1.5	0.5	85.5		
RCA2-TFA3NA-I-10-1-①-②-③-④			1	3	1	170.9		
RCA2-TFA3NA-I-10-4S-①-②-③-④	10	Lead screw	4	0.25	0.125	25.1	±0.05	30 50
RCA2-TFA3NA-I-10-2S-①-②-③-④			2	0.5	0.25	50.3		
RCA2-TFA3NA-I-10-1S-①-②-③-④			1	1	0.5	100.5		

Stroke and Maximum Speed

Stroke Lead	Stroke	30 (mm)	50 (mm)
	Ball screw	4	200
2		100	
1		50	
Lead screw	4	200	
	2	100	
	1	50	

Code explanation ① Stroke ② Applicable controller ③ Cable length ④ Options *See page A-71 for details on push motion.

(Unit: mm/s)

① Stroke

Stroke (mm)	Standard price	
	Ball screw	Lead screw
30	—	—
50	—	—

③ Cable Length

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

* The standard cable for the RCA2 is the robot cable.
* See page A-59 for cables for maintenance.

④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Connector cable exits from the left	K1	→ A-51	—
Connector cable exits from the front	K2	→ A-51	—
Connector cable exits from the right	K3	→ A-51	—
Power-saving specification	LA	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw/Lead screw, ø4mm, rolled C10
Lost Motion	Ball screw: 0.1mm or less
	Lead screw: 0.3mm or less (initial value)
Frame	Material: Aluminum, white alumite treated
Allowable dynamic moment (Note)	Ma: 9.9 N·m, Mb: 9.9 N·m, Mc: 3.3 N·m
Allowable static moment	Ma: 14.1 N·m, Mb: 14.1 N·m, Mc: 6.7 N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification
	Ball screw specification

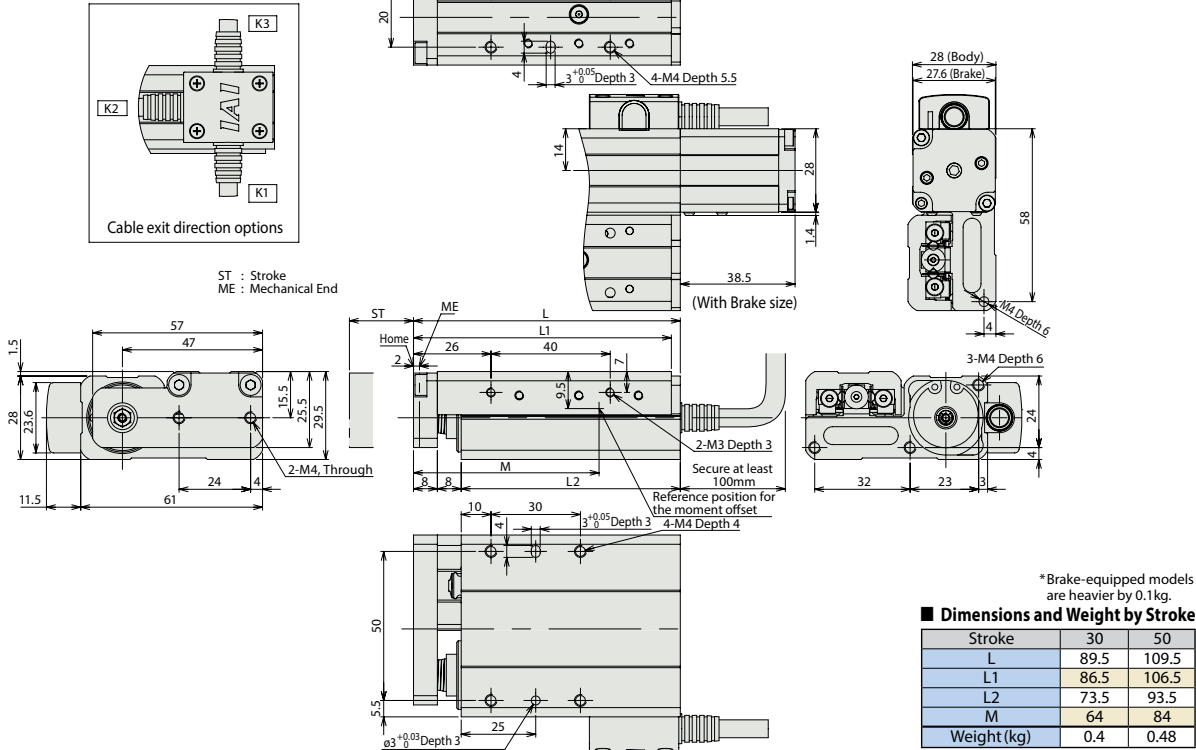
(Note) For cases when the guide service life has been set to 5,000km.
(*) For 1mm-lead: 3,000km or 50 million cycles.

331 RCA2-TFA3NA

Dimensional Drawings

For Special Orders Appendix P.15

(*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables.
 (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.



Applicable Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application. * ACON-CY also can be used.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		AMEC-C-10I①-②-2-1	Easy-to-use controller, even for beginners	3 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P537
		ASEP-C-10I①-②-2-0	Simple controller operable with the same signal as a solenoid valve				—	→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-③-④-⑤-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points			—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-③-④-⑤-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected				—	→ P631
Positioner type		ACON-C-10I①-②-2-0	Positioning is possible for up to 512 points	512 points			—	—
Safety-Compliant Positioner Type		ACON-CG-10I①-②-2-0						
Pulse Train Input Type (Differential Line Driver)		ACON-PL-10I①-②-2-0	Pulse train input type with differential line driver support	(—)			—	—
Pulse Train Input Type (Open Collector)		ACON-PO-10I①-②-2-0					—	
Serial Communication Type		ACON-SE-10I①-N-0-0	Dedicated Serial Communication	64 points	—	—		
Program Control Type		ASEL-CS-1-10I①-②-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	—	→ P675		

* This is for the single-axis ASEL. * Enter the code "LA" in ① when the power-saving specification is specified. * ① indicates I/O type (NP/PN).
 * ③ indicates number of axes (1 to 8). * ④ indicates field network specification symbol.

- Slider Type
- Mini
- Standard
- Controllers Integrated
- Rod Type
- Mini
- Standard
- Controllers Integrated
- Table/ Arm/ Flat Type
- Mini
- Standard
- Controllers Integrated
- Gripper/ Rotary Type
- Linear Servo Type
- Clean-room Type
- Splash-Proof Type
- Pulse Motor
- Servo Motor (24V)
- Servo Motor (200V)
- Linear Servo Motor

RCA2-TFA4NA

Robo Cylinder, Mini Table Type, Short-Length Flat Type, Actuator Width 71 mm, 24V Servo Motor, Ball Screw Specification/Lead Screw Specification

Model Specification Items	RCA2 — TFA4NA	I	20	□	□	□	□	□	
	Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
			I: Incremental * The Simple absolute encoder is also considered type "I".	20:20W Servo motor	6: Ball screw 6mm 4: Ball screw 4mm 2: Ball screw 2mm 6S: Lead screw 6mm 4S: Lead screw 4mm 2S: Lead screw 2mm	30: 30mm 50: 50mm	A1: ACON ASEL A3: AMEC ASEP MSEP	N: None P: 1m S: 3m M: 5m X□□: Custom Length	See options below.

* See page Pre-47 for details on the model descriptions.



Power-saving

Technical References Appendix P.5



- (1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for 2mm-lead, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.
- (2) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.
- (3) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Feed screw	Lead (mm)	Max. Load Capacity Horizontal (kg)	Vertical (kg)	Rated thrust (N)	Positioning Repeatability (mm)	Stroke (mm)
RCA2-TFA4NA-I-20-6-①-②-③-④	20	Ball screw	6	2	0.5	33.8	±0.02	30 50
RCA2-TFA4NA-I-20-4-①-②-③-④			4	3	0.75	50.7		
RCA2-TFA4NA-I-20-2-①-②-③-④			2	6	1.5	101.5		
RCA2-TFA4NA-I-20-6S-①-②-③-④	20	Lead screw	6	0.25	0.125	19.9	±0.05	30 50
RCA2-TFA4NA-I-20-4S-①-②-③-④			4	0.5	0.25	29.8		
RCA2-TFA4NA-I-20-2S-①-②-③-④			2	1	0.5	59.7		

Stroke and Maximum Speed

	Stroke Lead	30 (mm)	50 (mm)
		Ball screw	6 4 2
Lead screw	6 4 2	220 200 100	300

Code explanation ① Stroke ② Applicable controller ③ Cable length ④ Options *See page A-71 for details on push motion. *The values enclosed in < > apply to vertical settings. (Unit: mm/s)

① Stroke

Stroke (mm)	Standard price	
	Ball screw	Lead screw
30	—	—
50	—	—

③ Cable Length

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

* The standard cable for the RCA2 is the robot cable.
* See page A-59 for cables for maintenance.

④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Connector cable exits from the left	K1	→ A-51	—
Connector cable exits from the front	K2	→ A-51	—
Connector cable exits from the right	K3	→ A-51	—
Power-saving specification	LA	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw/Lead screw, ø6mm, rolled C10
Lost Motion	Ball screw: 0.1mm or less Lead screw: 0.3mm or less (initial value)
Frame	Material: Aluminum, white alumite treated
Allowable dynamic moment (Note)	Ma: 9.9 N·m, Mb: 9.9 N·m, Mc: 3.3 N·m
Allowable static moment	Ma: 14.1 N·m, Mb: 14.1 N·m, Mc: 6.7 N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification
	Ball screw specification
	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles 5,000km or 50 million cycles

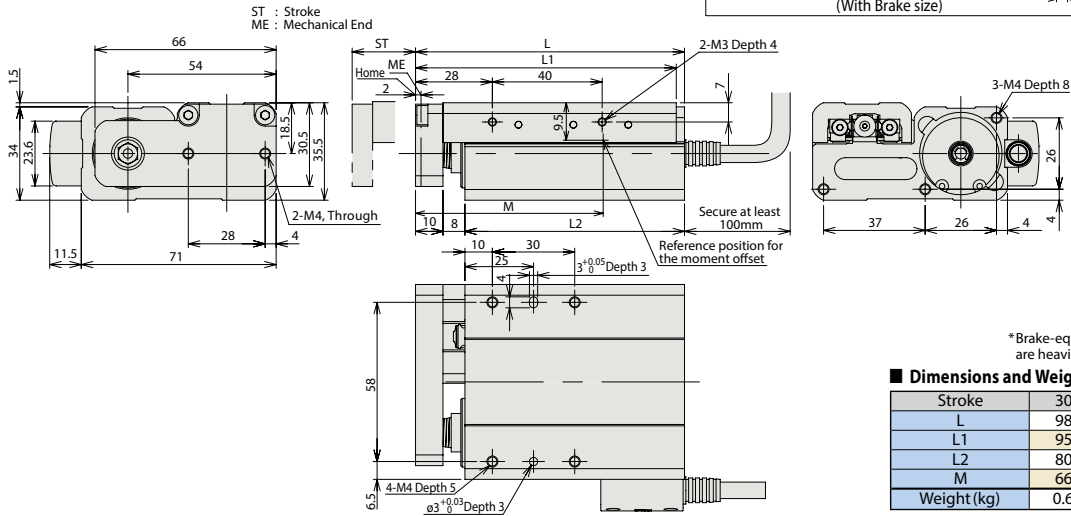
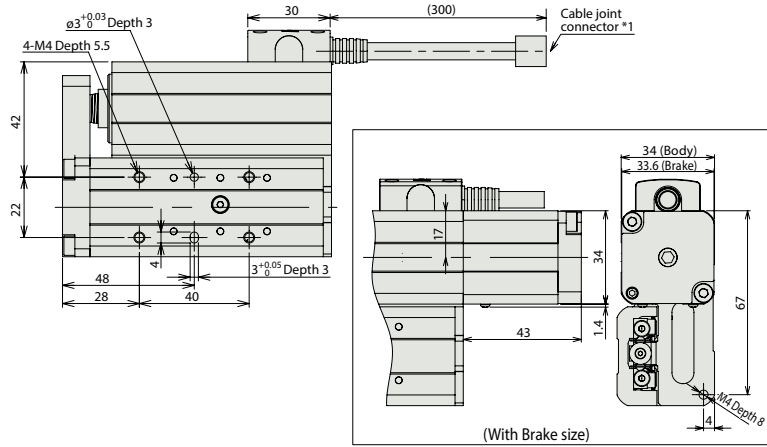
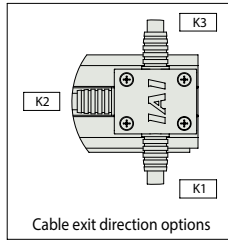
(Note) For cases when the guide service life has been set to 5,000km.

333 RCA2-TFA4NA

Dimensional Drawings

For Special Orders Appendix P.15

- (*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables.
- (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.



* Brake-equipped models are heavier by 0.15kg.

Dimensions and Weight by Stroke

Stroke	30	50
L	98	118
L1	95	115
L2	80	100
M	66	86
Weight (kg)	0.6	0.72

Applicable Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application. * ACON-CY also can be used.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		AMEC-C-20I-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P537
		ASEP-C-20I-2-0	Simple controller operable with the same signal as a solenoid valve					→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-20I-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-20I-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					
Positioner type		ACON-C-20I-2-0	Positioning is possible for up to 512 points	512 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P631
Safety-Compliant Positioner Type		ACON-CG-20I-2-0						
Pulse Train Input Type (Differential Line Driver)		ACON-PL-20I-2-0	Pulse train input type with differential line driver support	(—)	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P631
Pulse Train Input Type (Open Collector)		ACON-PO-20I-2-0	Pulse train input type with open collector support					
Serial Communication Type		ACON-SE-20I-N-0-0	Dedicated Serial Communication	64 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P675
Program Control Type		ASEL-CS-1-20I-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P675

* This is for the single-axis ASEL. * Enter the code "LA" in ① when the power-saving specification is specified. * ① indicates I/O type (NP/PN).
* ② indicates number of axes (1 to 8). * ③ indicates field network specification symbol.



RCA2-TFA4NA

334

- Slider Type
- Mini
- Standard
- Controllers Integrated
- Rod Type
- Mini
- Standard
- Controllers Integrated
- Table/Arm/Flat Type
- Mini
- Standard
- Gripper/Rotary Type
- Linear Servo Type
- Clean-room Type
- Splash-Proof Type
- Pulse Motor
- Servo Motor (24V)
- Servo Motor (200V)
- Linear Servo Motor

RCA2-TA4C

Robo Cylinder, Mini Table Type, Motor Unit Coupled Type, Actuator Width 40mm, 24V Servo Motor, Ball Screw Specification

Model Specification Items	RCA2 — TA4C — I — 10 — [] — [] — [] — [] — []
Series	Type — Encoder type — Motor type — Lead — Stroke — Applicable controller — Cable length — Options
	I: Incremental * The Simple absolute encoder is also considered type "I".
	10: 10W Servo motor
	6: 6mm 4: 4mm 2: 2mm
	20: 20mm ? 100: 100mm (10mm pitch increments)
	A1: ACON ASEL A3: AMEC ASEP MSEP
	N: None P: 1m S: 3m M: 5m X□□: Custom Length
	See options below.

* See page Pre-47 for details on the model descriptions.



Power-saving



Photo above shows the TA3C.

Technical References Appendix P.5



- (1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G in the case of 2mm-lead and vertical usage). The upper limit for acceleration is 0.3G (or 0.2G in case of 2mm-lead and vertical usage).
- (3) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Feed Screw	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)		
RCA2-TA4C-I-10-6-①-②-③-④	10	Ball screw	6	1	0.5	28	20~100 (every 10mm)
RCA2-TA4C-I-10-4-①-②-③-④			4	2	1	43	
RCA2-TA4C-I-10-2-①-②-③-④			2	3	1.5	85	

Stroke and Maximum Speed

Stroke Lead	20~100 (every 10mm)	
	Ball screw	6
	4	200
	2	100

Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options *See page A-71 for details on push motion. (Unit: mm/s)

① Stroke

① Stroke (mm)	Standard price
20	—
30	—
40	—
50	—
60	—
70	—
80	—
90	—
100	—

③ Cable Length

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

* The standard cable for the RCA2 is the robot cable.
* See page A-59 for cables for maintenance.

④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Cable exit direction (top)	CJT	→ A-42	—
Cable exit direction (right)	CJR	→ A-42	—
Cable exit direction (left)	CJL	→ A-42	—
Cable exit direction (bottom)	CJB	→ A-42	—
Power-saving specification	LA	→ A-52	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø6mm, rolled C10
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Allowable dynamic moment (*)	Ma: 4.2 N·m, Mb: 6 N·m, Mc: 8.2 N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

(*) Based on 5,000km of traveling life

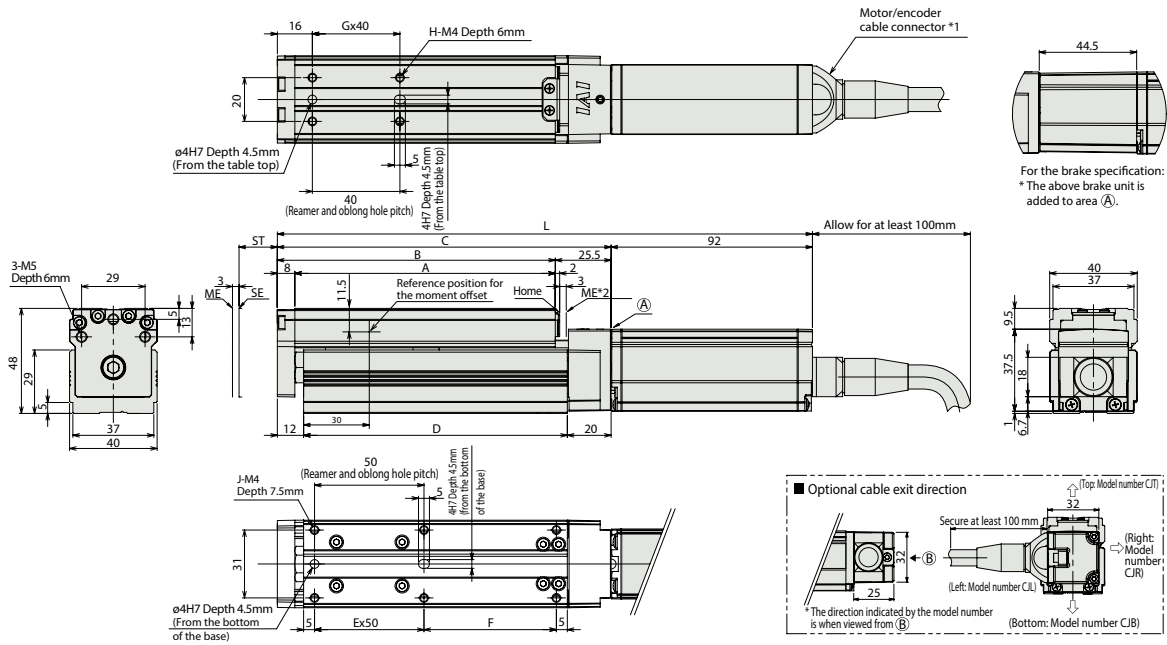
Directions of allowable load moments



335 RCA2-TA4C

Dimensional Drawings

For Special Orders Appendix P.15



(*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables.
(*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.

ST : Stroke
ME : Mechanical end
SE : Stroke end

Dimensions and Weight by Stroke

* Brake-equipped models are heavier by 0.2kg.

Stroke	20	30	40	50	60	70	80	90	100
Without brake	214.5	224.5	234.5	244.5	254.5	264.5	274.5	284.5	294.5
With brake	259	269	279	289	299	309	319	329	339
A	89	99	109	119	129	139	149	159	169
B	97	107	117	127	137	147	157	167	177
C	122.5	132.5	142.5	152.5	162.5	172.5	182.5	192.5	202.5
D	90.5	100.5	110.5	120.5	130.5	140.5	150.5	160.5	170.5
E	1	1	1	1	2	2	2	2	2
F	30.5	40.5	50.5	60.5	20.5	30.5	40.5	50.5	60.5
G	1	1	1	1	2	2	2	2	2
H	4	4	4	4	6	6	6	6	6
J	6	6	6	6	8	8	8	8	8
Weight (kg)	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.0	1.0

Applicable Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application. * ACON-CY also can be used.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		AMEC-C-10I①②-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P537
		ASEP-C-10I①②-2-0	Simple controller operable with the same signal as a solenoid valve					→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-③④⑤⑥⑦⑧⑨⑩-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-③④⑤⑥⑦⑧⑨⑩-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					
Positioner type		ACON-C-10I①②-2-0	Positioning is possible for up to 512 points	512 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	—
Safety-Compliant Positioner Type		ACON-CG-10I①②-0-2-0						
Pulse Train Input Type (Differential Line Driver)		ACON-PL-10I①②-2-0	Pulse train input type with differential line driver support	(—)	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P631
Pulse Train Input Type (Open Collector)		ACON-PO-10I①②-2-0						
Serial Communication Type		ACON-SE-10I①②-N-0-0	Dedicated Serial Communication	64 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	—
Program Control Type		ASEL-CS-1-10I①②-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P675

* This is for the single-axis ASEL. * Enter the code "LA" in ① when the power-saving specification is specified. * ①② indicates I/O type (NP/PN).
* ③④⑤⑥⑦⑧⑨⑩ indicates number of axes (1 to 8). * ④⑤ indicates field network specification symbol.

- Slider Type
- Mini
- Standard
- Controllers Integrated
- Rod Type
- Mini
- Standard
- Controllers Integrated
- Table/ Arm/ Flat Type
- Mini
- Standard
- Controllers Integrated
- Gripper/ Rotary Type
- Linear Servo Type
- Clean-room Type
- Splash-Proof Type
- Pulse Motor
- Servo Motor (24V)
- Servo Motor (200V)
- Linear Servo Motor

RCA2-TA5C

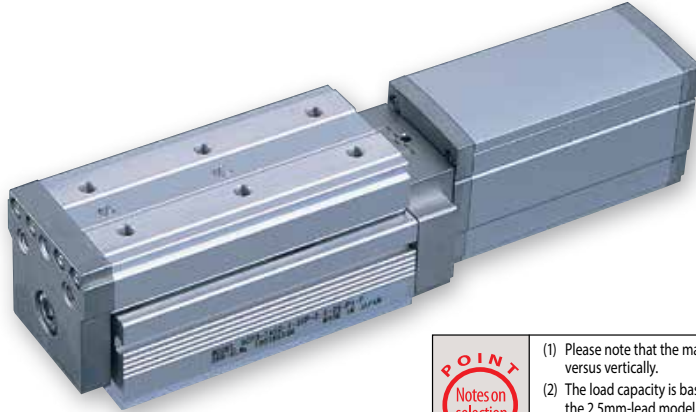
Robo Cylinder, Table Type, Actuator Width 55mm, Servo Motor, Coupled

Model Specification Items	RCA2 — TA5C — I — 20 — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/>
Series — Type — Encoder type — Motor type — Lead — Stroke — Applicable controller — Cable length — Options	I: Incremental * The Simple absolute encoder is also considered type "I". 20: 20W Servo motor 10: 10mm 5: 5mm 2.5: 2.5mm 25: 25mm ? 100: 100mm (25mm pitch increments) A1: ACON ASEL A3: AMEC ASEP MSEP N: None P: 1m S: 3m M: 5m X <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> : Custom Length See options below.

* See page Pre-47 for details on the model descriptions.



Power-saving



Technical References Appendix P.5

- POINT Notes on selection**
- (1) Please note that the maximum speed is different when used horizontally versus vertically.
 - (2) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 2.5mm-lead model, or when used vertically.) This is the upper limit of the acceleration.
 - (3) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCA2-TA5C-I-20-10-①-②-③-④	20	10	2	1	34	25~100 (every 25mm)
RCA2-TA5C-I-20-5-①-②-③-④		5	3.5	2	68	
RCA2-TA5C-I-20-2.5-①-②-③-④		2.5	5	3	137	

Stroke and Maximum Speed

Stroke Lead	25~200 (every 25mm)	
	10	465<400>
5	250	
2.5	125	

Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options *See page A-71 for details on push motion. *The values enclosed in < > apply to vertical settings. (Unit: mm/s)

① Stroke

① Stroke (mm)	Standard price
25	—
50	—
75	—
100	—

③ Cable Length

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

* The standard cable for the RCA2 is the robot cable.
* See page A-59 for cables for maintenance.

④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Cable exit direction (top)	CJT	→ A-42	—
Cable exit direction (right)	CJR	→ A-42	—
Cable exit direction (left)	CJL	→ A-42	—
Cable exit direction (bottom)	CJB	→ A-42	—
Power-saving specification	LA	→ A-52	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, special alumite treated
Allowable static moment	Ma: 25.5 N·m, Mb: 36.5 N·m, Mc: 56.1 N·m
Allowable dynamic moment (*)	Ma: 6.57 N·m, Mb: 9.32 N·m, Mc: 14.32 N·m
Overhang load length	Within the load moment range
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

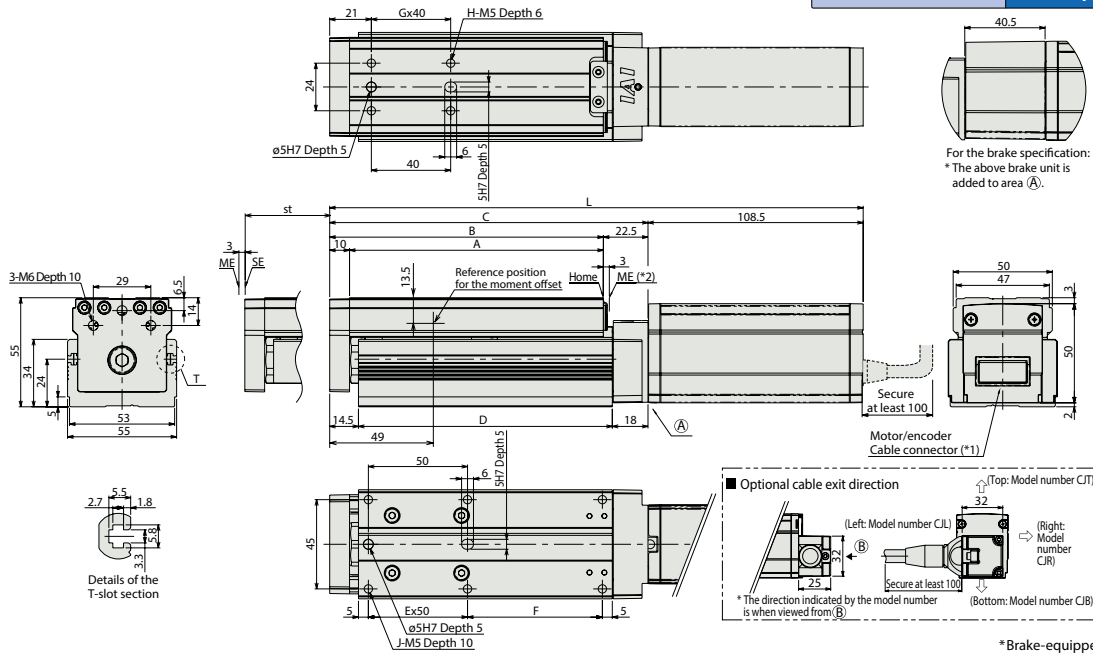
(*) Based on 5,000km of traveling life
Directions of allowable load moments



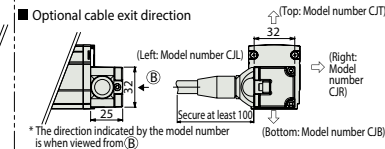
337 RCA2-TA5C

Dimensional Drawings

For Special Orders Appendix P.15



For the brake specification:
* The above brake unit is added to area (A).



* Brake-equipped models are heavier by 0.3kg.

■ Dimensions and Weight by Stroke

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	

- (*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables.
 - (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.
- ME : Mechanical end SE : Stroke end

② Applicable Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application. * ACON-CY also can be used.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page										
Solenoid Valve Type		AMEC-C-20SI(①)-(Ⅱ)-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P537										
		ASEP-C-20SI(①)-(Ⅱ)-2-0	Simple controller operable with the same signal as a solenoid valve					→ P547										
Solenoid valve multi-axis type PIO specification		MSEP-C-(Ⅲ)-(Ⅳ)-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points				DC24V	(Standard) 1.7A rated 5.1A max. (Power-saving) 1.7A rated 3.4A max.	—	→ P563							
Solenoid valve multi-axis type Network specification		MSEP-C-(Ⅲ)-(Ⅳ)-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected															
Positioner type		ACON-C-20SI(①)-(Ⅱ)-2-0	Positioning is possible for up to 512 points	512 points							DC24V	(Standard) 1.7A rated 5.1A max. (Power-saving) 1.7A rated 3.4A max.	—	—				
Safety-Compliant Positioner Type		ACON-CG-20SI(①)-(Ⅳ)-2-0																
Pulse Train Input Type (Differential Line Driver)		ACON-PL-20SI(①)-(Ⅱ)-2-0	Pulse train input type with differential line driver support	(—)											DC24V	(Standard) 1.7A rated 5.1A max. (Power-saving) 1.7A rated 3.4A max.	—	→ P631
Pulse Train Input Type (Open Collector)		ACON-PO-20SI(①)-(Ⅱ)-2-0																
Serial Communication Type		ACON-SE-20SI(①)-N-0-0	Dedicated Serial Communication	64 points	DC24V	(Standard) 1.7A rated 5.1A max. (Power-saving) 1.7A rated 3.4A max.	—											—
Program Control Type		ASEL-CS-1-20SI(①)-(Ⅱ)-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points														

* This is for the single-axis ASEL. * Enter the code "LA" in ① when the power-saving specification is specified. * ① indicates I/O type (NP/PN).
* ③ indicates number of axes (1 to 8). * Ⅳ indicates field network specification symbol.



RCA2-TA5C 338

- Slider Type
- Mini
- Standard
- Controllers Integrated
- Rod Type
- Mini
- Standard
- Controllers Integrated
- Table/ Arm/ Flat Type
- Mini
- Standard
- Gripper/ Rotary Type
- Linear Servo Type
- Clean-room Type
- Splash-Proof Type

- Pulse Motor
- Servo Motor (24V)
- Servo Motor (200V)
- Linear Servo Motor

RCA2-TA6C

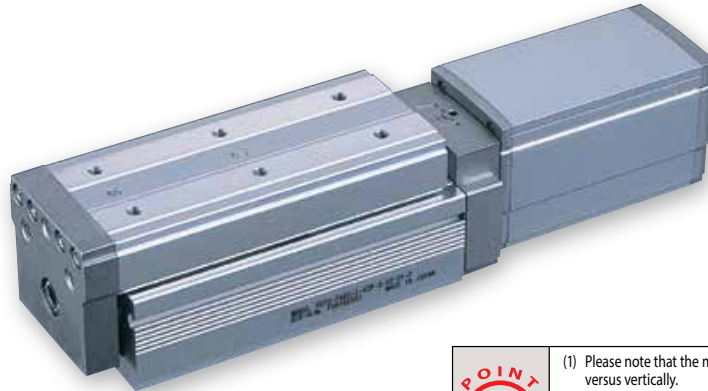
Robo Cylinder, Table Type, Actuator Width 65mm, Servo Motor, Coupled

Model Specification Items	RCA2 — TA6C — I — 20 — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/>
Series — Type — Encoder type — Motor type — Lead — Stroke — Applicable controller — Cable length — Options	I: Incremental 20: 20W Servo motor * The Simple absolute encoder is also considered type "I". 12: 12mm 6: 6mm 3: 3mm 25: 25mm ? 150: 150mm (25mm pitch increments) A1: ACON ASEL A3: AMEC ASEP MSEP N: None P: 1m S: 3m M: 5m X <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> : Custom Length See options below.

* See page Pre-47 for details on the model descriptions.



Power-saving



Technical References Appendix P.5

- Notes on selection**
- Please note that the maximum speed is different when used horizontally versus vertically.
 - The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically.) This is the upper limit of the acceleration.
 - See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCA2-TA6C-I-20-12-①-②-③-④	20	12	2	0.5	17	25~150 (every 25mm)
RCA2-TA6C-I-20-6-①-②-③-④		6	4	1.5	34	
RCA2-TA6C-I-20-3-①-②-③-④		3	6	3	68	

Stroke and Maximum Speed

Stroke Lead	25~150 (every 25mm)	
	12	560<500>
6	300	
3	150	

Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options *See page A-71 for details on push motion. *The values enclosed in < > apply to vertical settings. (Unit: mm/s)

① Stroke

① Stroke (mm)	Standard price
25	—
50	—
75	—
100	—
125	—
150	—

③ Cable Length

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

* The standard cable for the RCA2 is the robot cable.
* See page A-59 for cables for maintenance.

④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Cable exit direction (top)	CJT	→ A-42	—
Cable exit direction (right)	CJR	→ A-42	—
Cable exit direction (left)	CJL	→ A-42	—
Cable exit direction (bottom)	CJB	→ A-42	—
Power-saving specification	LA	→ A-52	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø10mm, rolled C10
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, special alumite treated
Allowable static moment	Ma: 29.4 N·m, Mb: 42.0 N·m, Mc: 74.1 N·m
Allowable dynamic moment (*)	Ma: 7.26 N·m, Mb: 10.3 N·m, Mc: 18.25 N·m
Overhang load length	Within the load moment range
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

(*) Based on 5,000km of traveling life

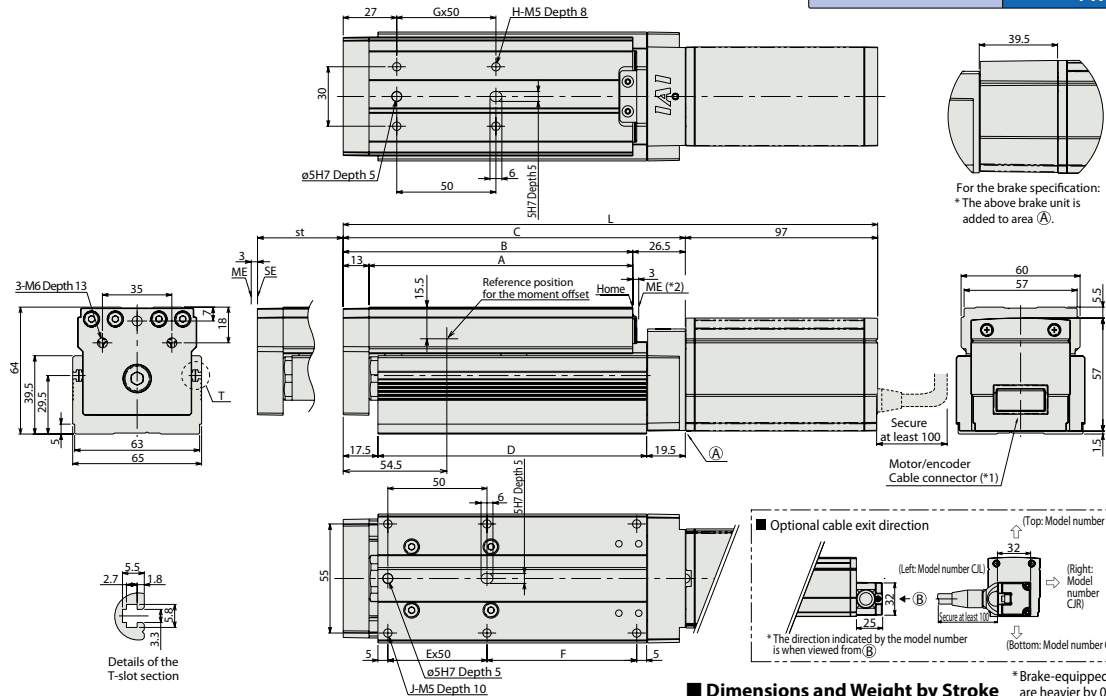
Directions of allowable load moments



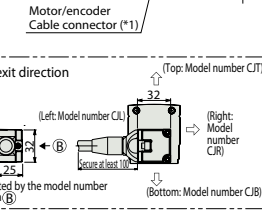
339 RCA2-TA6C

Dimensional Drawings

For Special Orders Appendix P.15



For the brake specification:
* The above brake unit is added to area (A).



■ Dimensions and Weight by Stroke *Brake-equipped models are heavier by 0.4kg.

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

(*1) Connect the motor-encoder integrated cable here. See page A-59 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

Applicable Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application. * ACON-CY also can be used.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		AMEC-C-20I①-②-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P537
		ASEP-C-20I①-②-2-0	Simple controller operable with the same signal as a solenoid valve					→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-③④⑤⑥⑦⑧-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-③④⑤⑥⑦⑧-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					
Positioner type		ACON-C-20I①-②-2-0	Positioning is possible for up to 512 points	512 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	—
Safety-Compliant Positioner Type		ACON-CG-20I①-②-2-0						
Pulse Train Input Type (Differential Line Driver)		ACON-PL-20I①-②-2-0	Pulse train input type with differential line driver support	(—)	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P631
Pulse Train Input Type (Open Collector)		ACON-PO-20I①-②-2-0						
Serial Communication Type		ACON-SE-20I①-N-0-0	Dedicated Serial Communication	64 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	—
Program Control Type		ASEL-CS-1-20I①-②-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P675

* This is for the single-axis ASEL. * Enter the code "LA" in ① when the power-saving specification is specified. * ① indicates I/O type (NP/PN).
* ③④⑤⑥⑦⑧ indicates number of axes (1 to 8). * ④ indicates field network specification symbol.



RCA2-TA6C 340

- Slider Type
- Mini
- Standard
- Controllers Integrated
- Rod Type
- Mini
- Standard
- Controllers Integrated
- Table/ Arm/ Flat Type
- Mini
- Standard
- Controllers Integrated
- Gripper/ Rotary Type
- Linear Servo Type
- Clean-room Type
- Splash-Proof Type
- Pulse Motor
- Servo Motor (24V)
- Servo Motor (200V)
- Linear Servo Motor

RCA2-TA7C

Robo Cylinder, Table Type, Actuator Width 75mm, Servo Motor, Coupled

Model Specification Items	RCA2 — TA7C — I — 30 — [] — [] — [] — [] — []
Series	Type — Encoder type — Motor type — Lead — Stroke — Applicable controller — Cable length — Options
	I: Incremental 30: 30W Servo motor * The Simple absolute encoder is also considered type "I".
	Lead: 12: 12mm, 6: 6mm, 3: 3mm
	Stroke: 25: 25mm, 200: 200mm (25mm pitch increments)
	Applicable controller: A1: ACON, ASEL, A3: AMEC, ASEP, MSEP
	Cable length: N: None, P: 1m, S: 3m, M: 5m, X□□: Custom Length
	Options: See options below.

* See page Pre-47 for details on the model descriptions.



Power-saving



Technical References Appendix P.5

- POINT** Notes on selection
- (1) Please note that the maximum speed is different when used horizontally versus vertically.
 - (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.) This is the upper limit of the acceleration.
 - (3) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCA2-TA7C-I-30-12-①-②-③-④	30	12	4	1	26	25~200 (every 25mm)
RCA2-TA7C-I-30-6-①-②-③-④		6	6	2.5	53	
RCA2-TA7C-I-30-3-①-②-③-④		3	8	4	105	

Stroke and Maximum Speed

Stroke Lead	25~200 (every 25mm)	
	12	600<580>
6	300	
3	150	

Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options *See page A-71 for details on push motion. *The values enclosed in < > apply to vertical settings. (Unit: mm/s)

① Stroke

① Stroke (mm)	Standard price
25	—
50	—
75	—
100	—
125	—
150	—
175	—
200	—

③ Cable Length

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

* The standard cable for the RCA2 is the robot cable.
* See page A-59 for cables for maintenance.

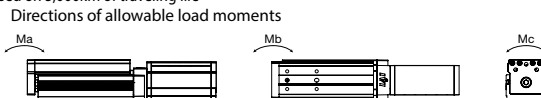
④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Cable exit direction (top)	CJT	→ A-42	—
Cable exit direction (right)	CJR	→ A-42	—
Cable exit direction (left)	CJL	→ A-42	—
Cable exit direction (bottom)	CJB	→ A-42	—
Power-saving specification	LA	→ A-52	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø10mm, rolled C10
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, special alumite treated
Allowable static moment	Ma: 42.6 N·m, Mb: 60.8 N·m, Mc: 123.2 N·m
Allowable dynamic moment (*)	Ma: 9.91 N·m, Mb: 14.13 N·m, Mc: 28.65 N·m
Overhang load length	Within the load moment range
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

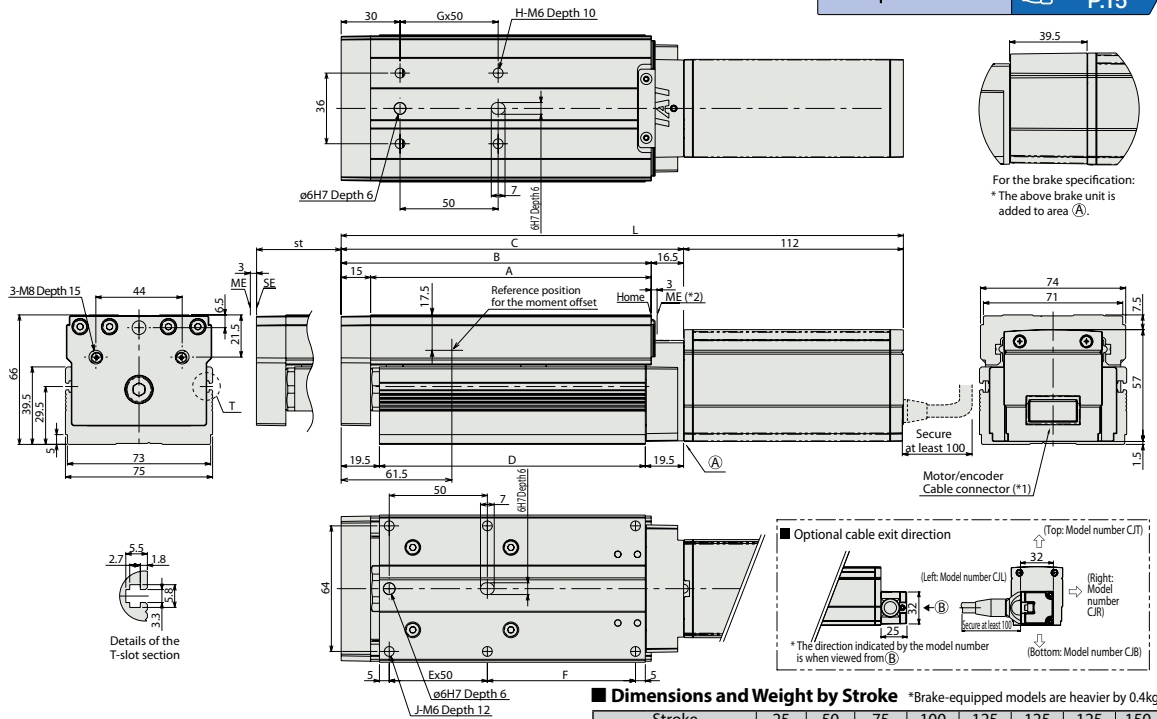
(*) Based on 5,000km of traveling life



341 RCA2-TA7C

Dimensional Drawings

For Special Orders Appendix P.15



■ Dimensions and Weight by Stroke *Brake-equipped models are heavier by 0.4kg.

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

(*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables.
 (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.
 ME: Mechanical end SE: Stroke end

② Applicable Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application. * ACON-CY also can be used.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		AMEC-C-30I①-②-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P537
		ASEP-C-30I①-②-2-0	Simple controller operable with the same signal as a solenoid valve					→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-③④⑤⑥⑦⑧⑨⑩-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.2A max.	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-③④⑤⑥⑦⑧⑨⑩-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					→ P631
Positioner type		ACON-C-30I①-②-2-0	Positioning is possible for up to 512 points	512 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.2A max.	—	—
Safety-Compliant Positioner Type		ACON-CG-30I①-④-2-0						
Pulse Train Input Type (Differential Line Driver)		ACON-PL-30I①-②-2-0	Pulse train input type with differential line driver support	(—)	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.2A max.	—	→ P631
Pulse Train Input Type (Open Collector)		ACON-PO-30I①-②-2-0	Pulse train input type with open collector support					→ P675
Serial Communication Type		ACON-SE-30I①-N-0-0	Dedicated Serial Communication	64 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.2A max.	—	—
Program Control Type		ASEL-CS-1-30I①-②-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.2A max.	—	→ P675

* This is for the single-axis ASL. * Enter the code "LA" in ① when the power-saving specification is specified. * ① indicates I/O type (NP/PN).
 * ③④⑤⑥⑦⑧⑨⑩ indicates number of axes (1 to 8). * ④⑤ indicates field network specification symbol.

Slider Type

Mini

Standard

Controllers Integrated

Rod Type

Mini

Standard

Controllers Integrated

Table/Arm/Flat Type

Mini

Standard

Gripper/Rotary Type

Linear Servo Type

Clean-room Type

Splash-Proof Type

Pulse Motor

Servo Motor (24V)

Servo Motor (200V)

Linear Servo Motor

RCA2-TA4R

Robo Cylinder, Mini Table Type, Motor Unit Coupled Type, Actuator Width 40mm, 24V Servo Motor, Ball Screw Specification

Model Specification Items	RCA2 — TA4R — I — 10 — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/>
Series	— Type — Encoder type — Motor type — Lead — Stroke — Applicable controller — Cable length — Options
	I: Incremental * The Simple absolute encoder is also considered type "I".
	10: 10W Servo motor
	6: 6mm 4: 4mm 2: 2mm
	20: 20mm ? 100: 100mm (10mm pitch increments)
	A1: ACON ASEL A3: AMEC ASEP MSEP
	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-47 for details on the model descriptions.



Power-saving



Photo above shows the specification with TA3R motor side-mounted to the left (ML).

Technical References Appendix P.5

POINT
Notes on selection

(1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (or 0.2G in the case of 2mm-lead and vertical usage). The upper limit for acceleration is 0.3G (or 0.2G in case of 2mm-lead and vertical usage).
(3) See page A-71 for details on push motion.

Actuator Specifications								
Leads and Payloads				Stroke and Maximum Speed				
Model number	Motor output (W)	Feed Screw	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
RCA2-TA4R-I-10-6-①-②-③-④	10	Ball screw	6	1	0.5	28	±0.02	20~100 (every 10mm)
RCA2-TA4R-I-10-4-①-②-③-④			4	2	1	43		
RCA2-TA4R-I-10-2-①-②-③-④			2	3	1.5	85		

Stroke	20~100 (every 10mm)	
	Lead	Stroke
Ball screw	6	300
	4	200
	2	100

Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options *See page A-71 for details on push motion. (Unit: mm/s)

① Stroke	
Stroke (mm)	Standard price
20	—
30	—
40	—
50	—
60	—
70	—
80	—
90	—
100	—

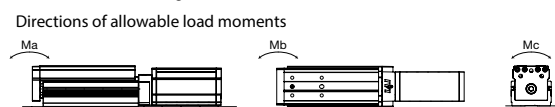
③ Cable Length		
Type	Cable symbol	Standard price
Standard (Robot Cables)	P (1m)	—
	S (3m)	—
	M (5m)	—
Special length	X06 (6m) ~ X10 (10m)	—
	X11 (11m) ~ X15 (15m)	—
	X16 (16m) ~ X20 (20m)	—

* The standard cable for the RCA2 is the robot cable.
* See page A-59 for cables for maintenance.

④ Options			
Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Cable exit direction (top)	CJT	→ A-42	—
Cable exit direction (outside)	CJO	→ A-42	—
Cable exit direction (bottom)	CJB	→ A-42	—
Power-saving specification	LA	→ A-52	—
Side-mounted motor to the left (standard)	ML	→ A-52	—
Side-mounted motor to the right	MR	→ A-52	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications	
Item	Description
Drive System	Ball screw, ø6mm, rolled C10
Lost Motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Allowable dynamic moment (*)	Ma: 4.2 N-m, Mb: 6 N-m, Mc: 8.2 N-m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

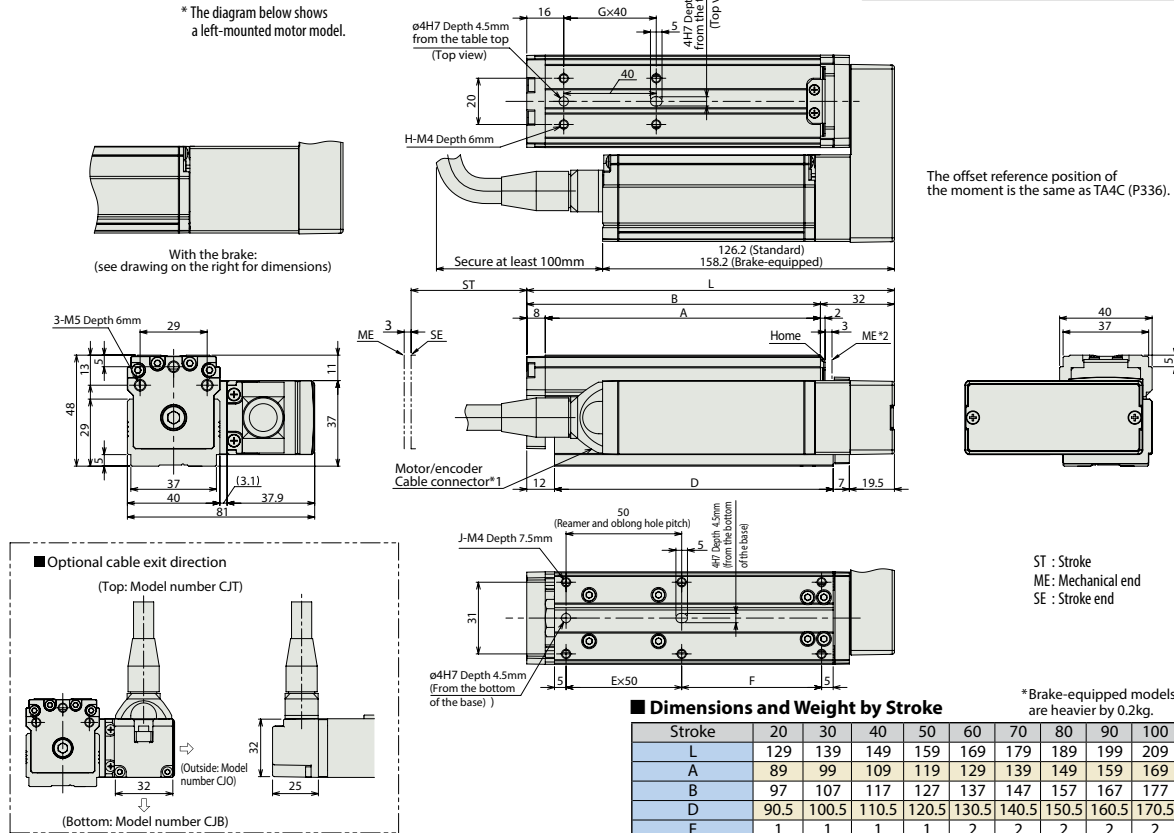
(*) Based on 5,000km of traveling life



343 RCA2-TA4R

Dimensional Drawings

For Special Orders Appendix P.15



(*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables.
(*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.

Applicable Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application. * ACON-CY also can be used.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		AMEC-C-10I①-②-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P537
		ASEP-C-10I①-②-2-0	Simple controller operable with the same signal as a solenoid valve					→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-③-④-⑤-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-③-④-⑤-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					→ P631
Positioner type		ACON-C-10I①-②-2-0	Positioning is possible for up to 512 points	512 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	—
Safety-Compliant Positioner Type		ACON-CG-10I①-②-2-0						
Pulse Train Input Type (Differential Line Driver)		ACON-PL-10I①-②-2-0	Pulse train input type with differential line driver support	(—)	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P631
Pulse Train Input Type (Open Collector)		ACON-PO-10I①-②-2-0	Pulse train input type with open collector support					
Serial Communication Type		ACON-SE-10I①-N-0-0	Dedicated Serial Communication	64 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	—
Program Control Type		ASEL-CS-1-10I①-②-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P675

* This is for the single-axis ASEL. * Enter the code "LA" in ① when the power-saving specification is specified. * ① indicates I/O type (NP/PN).
* ③ indicates number of axes (1 to 8). * ④ indicates field network specification symbol.

- Slider Type
- Mini
- Standard
- Controllers Integrated
- Rod Type
- Mini
- Standard
- Controllers Integrated
- Table/Arm/Flat Type
- Mini
- Standard
- Gripper/Rotary Type
- Linear Servo Type
- Clean-room Type
- Splash-Proof Type
- Pulse Motor
- Servo Motor (24V)
- Servo Motor (200V)
- Linear Servo Motor

RCA2-TA5R

Robo Cylinder, Table Type, Actuator Width 55mm, Servo Motor, Side-mounted Motor

Model Specification Items	RCA2	TA5R	I	20					
	Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
			I: Incremental * The Simple absolute encoder is also considered type "I".	20: 20W Servo motor	10: 10mm 5: 5mm 2.5: 2.5mm	25: 25mm ? 100: 100mm (25mm pitch increments)	A1: ACON ASEL A3: AMEC ASEP MSEP	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-47 for details on the model descriptions.



Power-saving



Technical References Appendix P.5

- POINT** Notes on selection
- (1) Please note that the maximum speed is different when used horizontally versus vertically.
 - (2) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 2.5mm-lead model, or when used vertically.) This is the upper limit of the acceleration.
 - (3) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCA2-TA5R-I-20-10-①-②-③-④	20	10	2	1	34	25~100 (every 25mm)
RCA2-TA5R-I-20-5-①-②-③-④		5	3.5	2	68	
RCA2-TA5R-I-20-2.5-①-②-③-④		2.5	5	3	137	

Stroke and Maximum Speed

Stroke Lead	25~100 (every 25mm)
10	465<400>
5	250
2.5	125

Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options *See page A-71 for details on push motion. *The values enclosed in < > (Unit: mm/s) apply to vertical settings.

① Stroke

① Stroke (mm)	Standard price
25	—
50	—
75	—
100	—

③ Cable Length

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

* The standard cables is the motor-encoder integrated robot cable.
* See page A-59 for cables for maintenance.

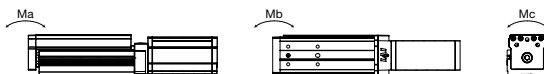
④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Cable exit direction (top)	CJT	→ A-42	—
Cable exit direction (outside)	CJO	→ A-42	—
Cable exit direction (bottom)	CJB	→ A-42	—
Power-saving specification	LA	→ A-52	—
Left-mounted motor (standard)	ML	→ A-52	—
Right-mounted motor	MR	→ A-52	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, special alumite treated
Allowable static moment	Ma: 25.5 N·m, Mb: 36.5 N·m, Mc: 56.1 N·m
Allowable dynamic moment	Ma: 6.57 N·m, Mb: 9.32 N·m, Mc: 14.32 N·m
Overhang load length	Within the load moment range
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

Directions of allowable load moments

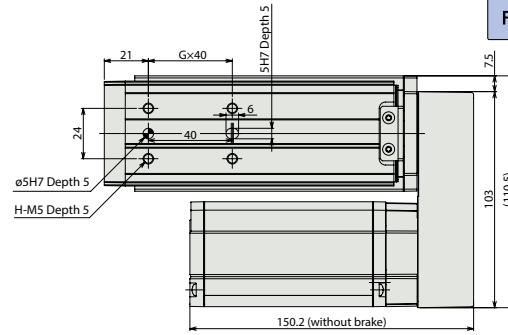
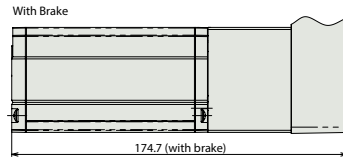


345 RCA2-TA5R

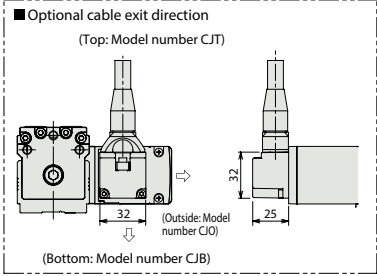
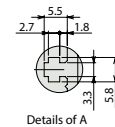
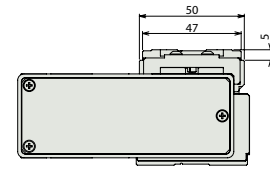
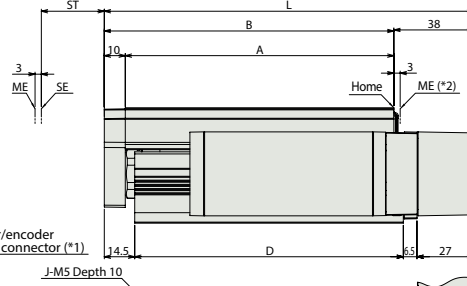
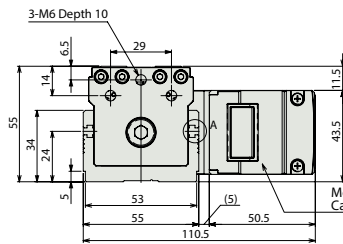
Dimensional Drawings

For Special Orders Appendix P.15

*Please note that, for 25mm-stroke model with brake, the motor unit protrudes from the end of the table.



The offset reference position of the moment is the same as TA5C (P338).



- (*1) Connect the motor-encoder integrated cable here. See page A-59 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

■ Dimensions and Weight by Stroke

Stroke	25	50	75	100
L	151	176	201	226
A	103	128	153	178
B	113	138	163	188
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)	1.4	1.6	1.7	1.9

* Brake-equipped models are heavier by 0.3kg.

② Applicable Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application. * ACON-CY also can be used.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		AMEC-C-20SI①-②-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P537
		ASEP-C-20SI①-②-0	Simple controller operable with the same signal as a solenoid valve					→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-③-④-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	(Standard) 1.7A rated 5.1A max. (Power-saving) 1.7A rated 3.4A max.	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-③-④-⑤-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					
Positioner type		ACON-C-20SI①-②-0	Positioning is possible for up to 512 points	512 points	DC24V	(Standard) 1.7A rated 5.1A max. (Power-saving) 1.7A rated 3.4A max.	—	—
Safety-Compliant Positioner Type		ACON-CG-20SI①-④-2-0						
Pulse Train Input Type (Differential Line Driver)		ACON-PL-20SI①-②-0	Pulse train input type with differential line driver support	(—)	DC24V	(Standard) 1.7A rated 5.1A max. (Power-saving) 1.7A rated 3.4A max.	—	→ P631
Pulse Train Input Type (Open Collector)		ACON-PO-20SI①-②-0						
Serial Communication Type		ACON-SE-20SI①-N-0-0	Dedicated Serial Communication	64 points	DC24V	(Standard) 1.7A rated 5.1A max. (Power-saving) 1.7A rated 3.4A max.	—	—
Program Control Type		ASEL-CS-1-20SI①-②-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	(Standard) 1.7A rated 5.1A max. (Power-saving) 1.7A rated 3.4A max.	—	→ P675

* This is for the single-axis ASEL. * Enter the code "LA" in ① when the power-saving specification is specified. * ① indicates I/O type (NP/PN).
* ③ indicates number of axes (1 to 8). * ④ indicates field network specification symbol.

Slider Type

Mini

Standard

Controllers Integrated

Rod Type

Mini

Standard

Controllers Integrated

Table/Arm/Flat Type

Mini

Standard

Gripper/Rotary Type

Linear Servo Type

Clean-room Type

Splash-Proof Type

Pulse Motor

Servo Motor (24V)

Servo Motor (200V)

Linear Servo Motor

RCA2-TA6R

Robo Cylinder, Table Type, Actuator Width 65mm, Servo Motor, Side-mounted Motor

Model Specification Items	RCA2	TA6R	I	20					
	Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
			I: Incremental * The Simple absolute encoder is also considered type "I".	20: 20W Servo motor	12: 12mm 6: 6mm 3: 3mm	25: 25mm ? 150: 150mm (25mm pitch increments)	A1: ACON ASEL A3: AMEC ASEP MSEP	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-47 for details on the model descriptions.



Power-saving



Technical References Appendix P.5

- POINT** Notes on selection
- (1) Please note that the maximum speed is different when used horizontally versus vertically.
 - (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.) This is the upper limit of the acceleration.
 - (3) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCA2-TA6R-I-20-12-①-②-③-④	20	12	2	0.5	17	25~150 (every 25mm)
RCA2-TA6R-I-20-6-①-②-③-④		6	4	1.5	34	
RCA2-TA6R-I-20-3-①-②-③-④		3	6	3	68	

Stroke and Maximum Speed

Stroke Lead	25~150 (every 25mm)	
	12	560<500>
6	300	
3	150	

Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options *See page A-71 for details on push motion. *The values enclosed in < > apply to vertical settings. (Unit: mm/s)

① Stroke

① Stroke (mm)	Standard price
25	—
50	—
75	—
100	—
125	—
150	—

③ Cable Length

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

* The standard cables is the motor-encoder integrated robot cable.
* See page A-59 for cables for maintenance.

④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Cable exit direction (top)	CJT	→ A-42	—
Cable exit direction (outside)	CJO	→ A-42	—
Cable exit direction (bottom)	CJB	→ A-42	—
Power-saving specification	LA	→ A-52	—
Left-mounted motor (standard)	ML	→ A-52	—
Right-mounted motor	MR	→ A-52	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø10mm, rolled C10
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, special alumite treated
Allowable static moment	Ma: 29.4 N·m, Mb: 42.0 N·m, Mc: 74.1 N·m
Allowable dynamic moment	Ma: 7.26 N·m, Mb: 10.3 N·m, Mc: 18.25 N·m
Overhang load length	Within the load moment range
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

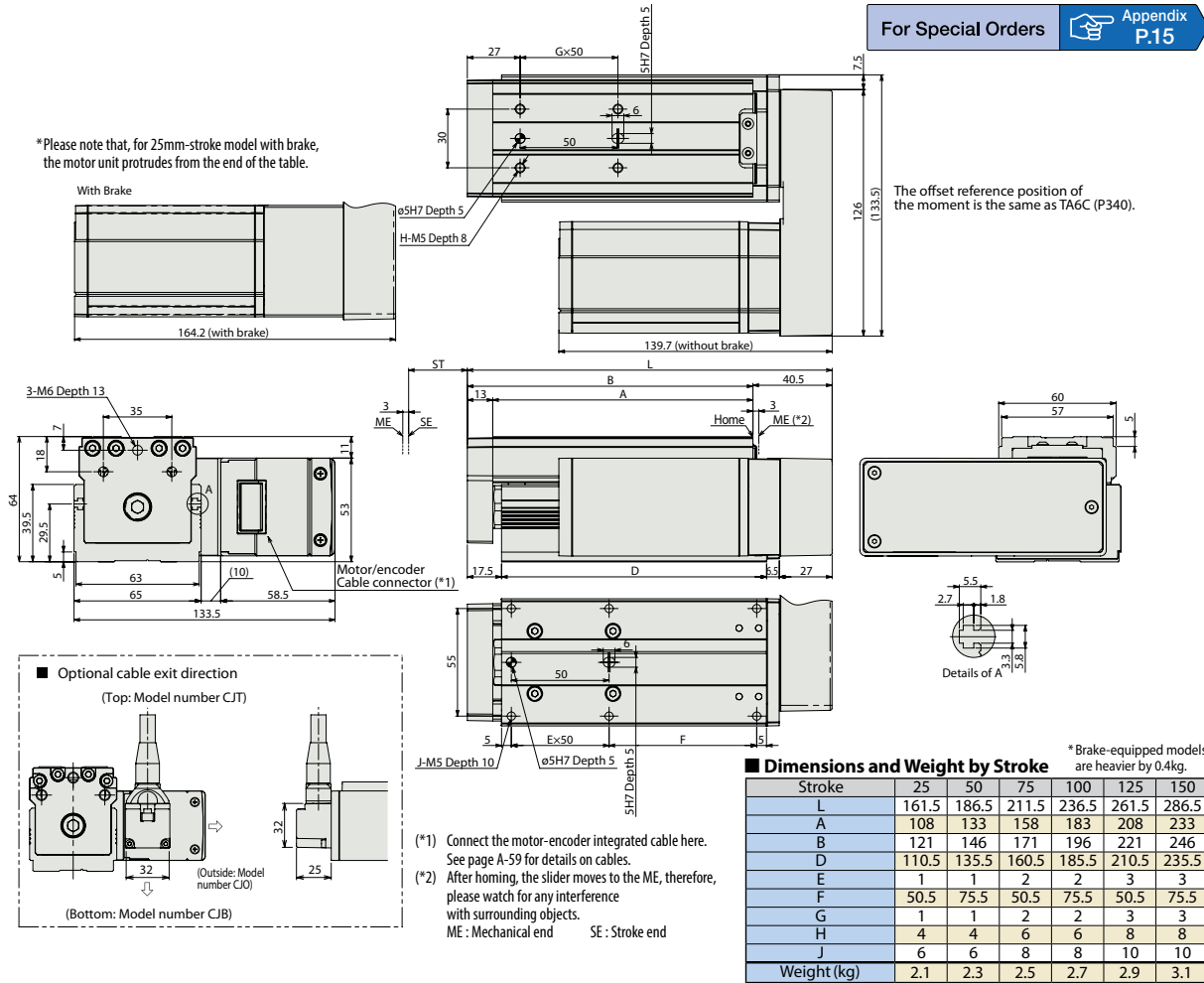
Directions of allowable load moments



347 RCA2-TA6R

Dimensional Drawings

For Special Orders Appendix P.15



Applicable Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application. * ACON-CY also can be used.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		AMEC-C-20I①-②-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P537
		ASEP-C-20I①-②-2-0	Simple controller operable with the same signal as a solenoid valve					→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-③-④-⑤-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-③-④-⑤-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					
Positioner type		ACON-C-20I①-②-2-0	Positioning is possible for up to 512 points	512 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P631
Safety-Compliant Positioner Type		ACON-CG-20I①-④-2-0						
Pulse Train Input Type (Differential Line Driver)		ACON-PL-20I①-②-2-0	Pulse train input type with differential line driver support	(—)	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P631
Pulse Train Input Type (Open Collector)		ACON-PO-20I①-②-2-0	Pulse train input type with open collector support					
Serial Communication Type		ACON-SE-20I①-N-0-0	Dedicated Serial Communication	64 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P675
Program Control Type		ASEL-CS-1-20I①-②-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points				

* This is for the single-axis ASEL. * Enter the code "LA" in ① when the power-saving specification is specified. * ② indicates I/O type (NP/PN). * ③ indicates number of axes (1 to 8). * ④ indicates field network specification symbol.

Slider Type

Mini

Standard

Controllers Integrated

Rod Type

Mini

Standard

Controllers Integrated

Table/Arm/Flat Type

Mini

Standard

Gripper/Rotary Type

Linear Servo Type

Clean-room Type

Splash-Proof Type

Pulse Motor

Servo Motor (24V)

Servo Motor (200V)

Linear Servo Motor

RCA2-TA7R

Robo Cylinder, Table Type, Actuator Width 75mm, Servo Motor, Side-mounted Motor

Model Specification Items	RCA2	—	TA7R	—	I	—	30	—		—		—		—		—	
	Series	—	Type	—	Encoder type	—	Motor type	—	Lead	—	Stroke	—	Applicable controller	—	Cable length	—	Options
					I: Incremental * The Simple absolute encoder is also considered type "I".		30: 30W Servo motor		12: 12mm 6: 6mm 3: 3mm		25: 25mm ? 200: 200mm (25mm pitch increments)		A1: ACON ASEL A3: AMEC ASEP MSEP		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-47 for details on the model descriptions.



Power-saving



Technical References Appendix P.5

- POINT Notes on selection**
- (1) Please note that the maximum speed is different when used horizontally versus vertically.
 - (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.) This is the upper limit of the acceleration.
 - (3) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCA2-TA7R-I-30-12-①-②-③-④	30	12	4	1	26	25~200 (every 25mm)
RCA2-TA7R-I-30-6-①-②-③-④		6	6	2.5	53	
RCA2-TA7R-I-30-3-①-②-③-④		3	8	4	105	

Stroke and Maximum Speed

Stroke Lead	25~200 (every 25mm)	
	12	600<580>
6	300	
3	150	

Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options *See page A-71 for details on push motion. *The values enclosed in < > apply to vertical settings. (Unit: mm/s)

① Stroke

① Stroke (mm)	Standard price
25	—
50	—
75	—
100	—
125	—
150	—
175	—
200	—

③ Cable Length

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

* The standard cables is the motor-encoder integrated robot cable.
* See page A-59 for cables for maintenance.

④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Cable exit direction (top)	CJT	→ A-42	—
Cable exit direction (outside)	CJO	→ A-42	—
Cable exit direction (bottom)	CJB	→ A-42	—
Power-saving specification	LA	→ A-52	—
Left-mounted motor (standard)	ML	→ A-52	—
Right-mounted motor	MR	→ A-52	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø10mm, rolled C10
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, special alumite treated
Allowable static moment	Ma: 42.6 N·m, Mb: 60.8 N·m, Mc: 123.2 N·m
Allowable dynamic moment	Ma: 9.91 N·m, Mb: 14.13 N·m, Mc: 28.65 N·m
Overhang load length	Within the load moment range
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

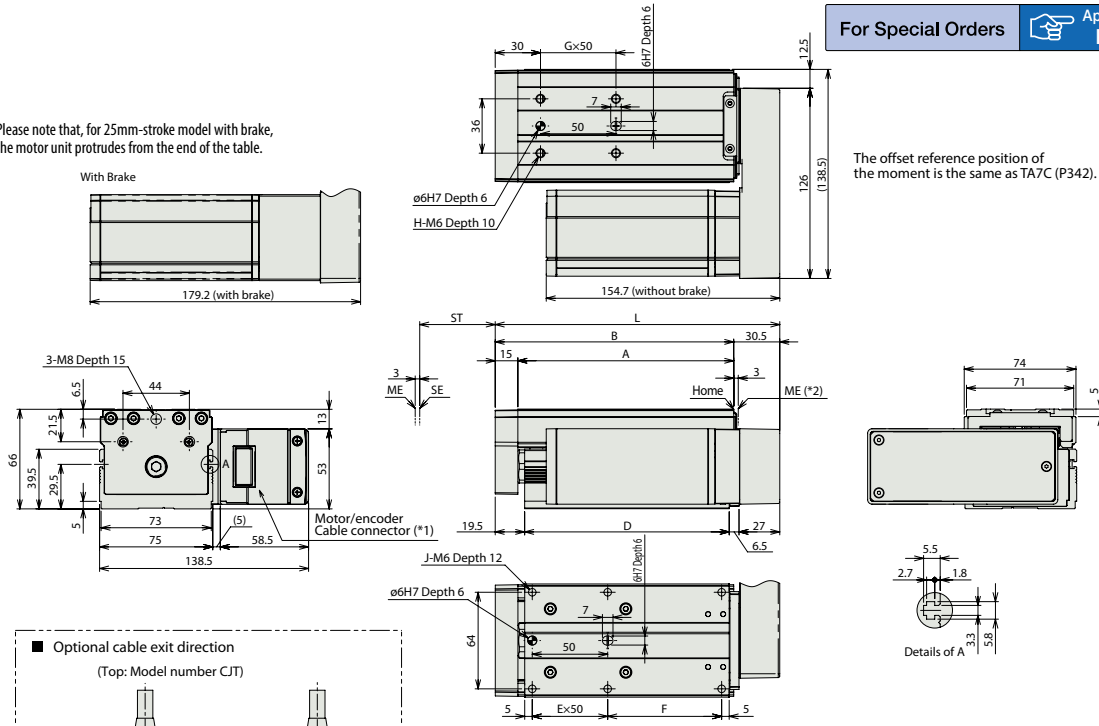
Directions of allowable load moments



349 RCA2-TA7R

Dimensional Drawings

*Please note that, for 25mm-stroke model with brake, the motor unit protrudes from the end of the table.



For Special Orders Appendix P.15

The offset reference position of the moment is the same as TA7C (P342).

Dimensions and Weight by Stroke

*Brake-equipped models are heavier by 0.4kg.

Stroke	25	50	75	100	125	150	175	200
L	163.5	188.5	213.5	238.5	263.5	288.5	313.5	338.5
A	118	143	168	193	218	243	268	293
B	133	158	183	208	233	258	283	308
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)	2.4	2.6	2.8	3.1	3.3	3.5	3.7	3.9

(*1) Connect the motor-encoder integrated cable here. See page A-59 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

Applicable Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application. *ACON-CY also can be used.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		AMEC-C-30I(1)-(II)-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P537
		ASEP-C-30I(1)-(II)-2-0	Simple controller operable with the same signal as a solenoid valve					→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-30I(1)-(II)-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	(Standard) 1.3A rated 4.4A max.	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-30I(1)-(IV)-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					
Positioner type		ACON-C-30I(1)-(II)-2-0	Positioning is possible for up to 512 points	512 points	DC24V	(Power-saving) 1.3A rated 2.2A max.	—	→ P631
Safety-Compliant Positioner Type		ACON-CG-30I(1)-(IV)-2-0						
Pulse Train Input Type (Differential Line Driver)		ACON-PL-30I(1)-(II)-2-0	Pulse train input type with differential line driver support	(—)	DC24V	(Power-saving) 1.3A rated 2.2A max.	—	→ P631
Pulse Train Input Type (Open Collector)		ACON-PO-30I(1)-(II)-2-0	Pulse train input type with open collector support					
Serial Communication Type		ACON-SE-30I(1)-N-0-0	Dedicated Serial Communication	64 points	DC24V	(Power-saving) 1.3A rated 2.2A max.	—	→ P675
Program Control Type		ASEL-CS-130I(1)-(II)-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	(Power-saving) 1.3A rated 2.2A max.	—	→ P675

* This is for the single-axis ASEL. * Enter the code "LA" in (1) when the power-saving specification is specified. * (II) indicates I/O type (NP/PN).
 * (1) indicates number of axes (1 to 8). * (IV) indicates field network specification symbol.

Slider Type

Mini

Standard

Controllers Integrated

Rod Type

Mini

Standard

Controllers Integrated

Table/Arm/Flat Type

Mini

Standard

Gripper/Rotary Type

Linear Servo Type

Clean-room Type

Splash-Proof Type

Pulse Motor

Servo Motor (24V)

Servo Motor (200V)

Linear Servo Motor

RCS2-TCA5N

Robo Cylinder, Mini Table Type, Short-Length Compact type, Actuator Width 48mm, 200V Servo Motor, Ball Screw Specification

Model Specification Items	RCS2 — Series	TCA5N — Type	I — Encoder type I: Incremental specification	60 — Motor type 60: 60W Servo motor	Lead — 10: 10mm 5: 5mm 2.5: 2.5mm	Stroke — 50: 50mm 75: 75mm	T2 — Applicable controller T2: SCON-CA SSEL XSEL-P/Q	Cable length — N: None P: 1m S: 3m M: 5m X□□: Custom length R□□: Robot cable	Options — See options below.
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* See page Pre-47 for details on the model descriptions.



*CE compliance is optional.



Technical References Appendix P.5

- POINT** Notes on selection
- (1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for 2.5mm-lead) horizontally and 0.2G vertically. The acceleration limit is the value indicated above.
 - (2) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.
 - (3) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Feed Screw	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
RCS2-TCA5N-I-60-10-①-T2-②-③	60	Ball screw	10	5	1.5	89	±0.02	50 75
RCS2-TCA5N-I-60-5-①-T2-②-③			5	10	3	178		
RCS2-TCA5N-I-60-2.5-①-T2-②-③			2.5	20	6	356		

Code explanation ① Stroke ② Cable length ③ Options *See page A-71 for details on push motion.

Stroke and Maximum Speed

Stroke Lead	50 (mm)	75 (mm)
	10	280<230>
5	250<230>	250
2.5	125	

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

① Stroke

Stroke (mm)	Standard price
50	—
75	—

② Cable Length

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

* See page A-59 for cables for maintenance.

③ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
CE compliance	CE	→ A-42	—
Connector cable exits from the left	K1	→ A-51	—
Connector cable exits from the front	K2	→ A-51	—
Connector cable exits from the right	K3	→ A-51	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Lost Motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Allowable dynamic moment (*)	Ma: 15 N·m, Mb: 15 N·m, Mc: 7.1 N·m
Allowable static moment	Ma: 38.6 N·m, Mb: 38.6 N·m, Mc: 17.9 N·m
Overhang load length	Ma direction: 100mm or less, Mb, Mc direction: 100mm or less
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	5,000km or 50 million cycles

(*) Based on 5,000km of traveling life

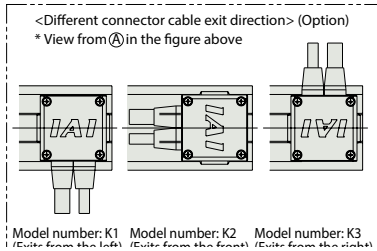
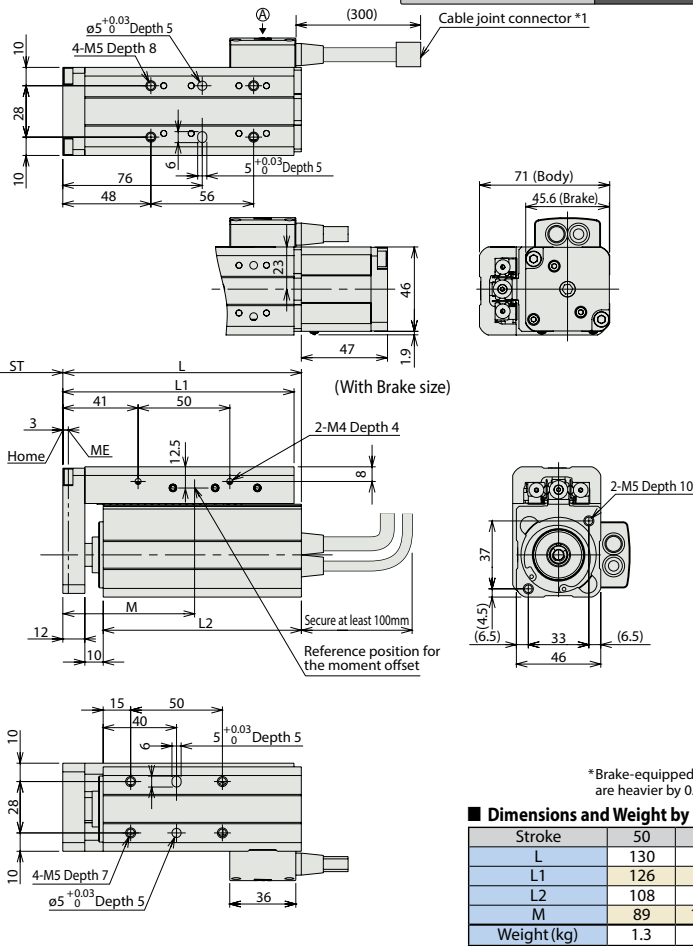
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RCS2-TCA5N

Dimensional Drawings

For Special Orders Appendix P.15

- (*1) Connect the motor-encoder integrated cable here.
- (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.



Applicable Controllers

RCS2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Positioner Type		SCON-CA-60I-NP-2-①	Up to 512 positioning points are supported	512 points	Single-phase 100 VAC	218 VA max.	—	→ P643
Solenoid mode			Can be operated with the same controls used for solenoid valves	7 points				
Network mode			Can be moved by direct numerical specification	768 points				
Pulse-train input control mode			Can be controlled using pulse trains	(—)				
Program control type 1 or 2 axes		SSEL-CS-1-60I-NP-2-①	Program operation is supported Up to two axes can be operated	20,000 points	3-phase 200 VAC (XSEL-P/Q only)	—	→ P685	
Program control type 1 or 6 axes		XSEL-①-1-60I-N1-EEE-2-3	Program operation is supported Up to six axes can be operated	20,000 points				—

* The values of SSEL and XSEL assume a 1-axis specification. * ① indicates the type of power-supply voltage (1: 100 V/2: Single-phase 200 V). * ① indicates the XSEL type (P/Q).

Please note that this model cannot be connected to the XSEL-P/Q type (5-axis/6-axis), XSEL-R/S type, or MSCON.

Slider Type

Mini

Standard

Controllers Integrated

Rod Type

Mini

Standard

Controllers Integrated

Table/Arm/Flat Type

Mini

Standard

Gripper/Rotary Type

Linear Servo Type

Clean-room Type

Splash-Proof Type

Pulse Motor

Servo Motor (24V)

Servo Motor (200V)

Linear Servo Motor

RCS2-TWA5N

Robo Cylinder, Mini Table Type, Short-Length Wide type, Actuator Width 80mm, 200V Servo Motor, Ball Screw Specification

Model Specification Items	RCS2 — TWA5N — I — 60 — <input type="checkbox"/> — <input type="checkbox"/> — T2 — <input type="checkbox"/> — <input type="checkbox"/>				
Series	Type — Encoder type — Motor type — Lead — Stroke — Applicable controller — Cable length — Options				
I: Incremental specification	60: 60W Servo motor				
10: 10mm	5: 5mm	2.5: 2.5mm	T2: SCON-CA SSEL XSEL-P/Q	N: None P: 1m S: 3m M: 5m X <input type="checkbox"/> : Custom length R <input type="checkbox"/> : Robot cable	See options below.

* See page Pre-47 for details on the model descriptions.



*CE compliance is optional.



Technical References Appendix P.5

- POINT** Notes on selection
- (1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for 2.5mm-lead) horizontally and 0.2G vertically. The acceleration limit is the value indicated above.
 - (2) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.
 - (3) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Feed Screw	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
RCS2-TWA5N-I-60-10- <input type="checkbox"/> -T2- <input type="checkbox"/> - <input type="checkbox"/>	60	Ball screw	10	5	1.5	89	±0.02	50 75
RCS2-TWA5N-I-60-5- <input type="checkbox"/> -T2- <input type="checkbox"/> - <input type="checkbox"/>			5	10	3	178		
RCS2-TWA5N-I-60-2.5- <input type="checkbox"/> -T2- <input type="checkbox"/> - <input type="checkbox"/>			2.5	20	6	356		

Stroke and Maximum Speed

Stroke Lead	50 (mm)	75 (mm)
	10	280<230>
5	250<230>	250
2.5	125	

Code explanation Stroke Cable length Options *See page A-71 for details on push motion.

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

① Stroke

Stroke (mm)	Standard price
50	—
75	—

② Cable Length

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

* See page A-59 for cables for maintenance.

③ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
CE compliance	CE	→ A-42	—
Connector cable exits from the left	K1	→ A-51	—
Connector cable exits from the front	K2	→ A-51	—
Connector cable exits from the right	K3	→ A-51	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Lost Motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Allowable dynamic moment (*)	Ma: 15 N·m, Mb: 15 N·m, Mc: 25.5 N·m
Allowable static moment	Ma: 38.6 N·m, Mb: 38.6 N·m, Mc: 64.8 N·m
Overhang load length	Ma direction: 100mm or less, Mb, Mc direction: 100mm or less
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	5,000km or 50 million cycles

(*) Based on 5,000km of traveling life

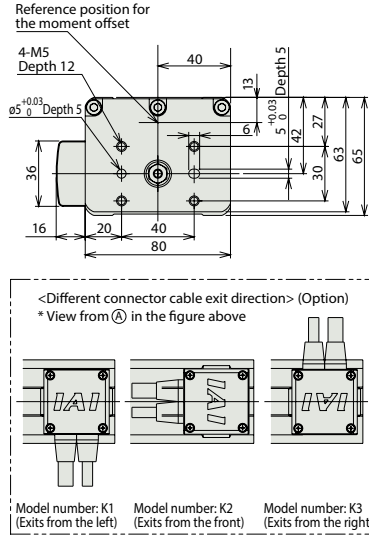
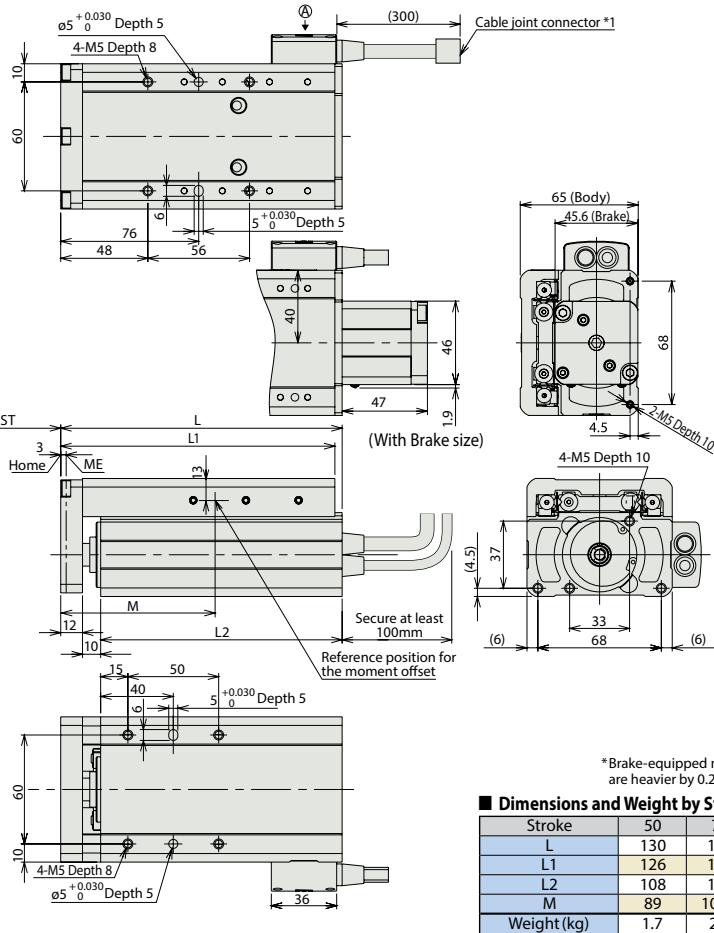
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RCS2-TWA5N

Dimensional Drawings

For Special Orders Appendix P.15

- (*1) Connect the motor-encoder integrated cable here.
- (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.



* Brake-equipped models are heavier by 0.26kg.

Applicable Controllers

RCS2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Positioner Type		SCON-CA-60I-NP-2-①	Up to 512 positioning points are supported	512 points	Single-phase 100 VAC	218 VA max.	—	→ P643
Solenoid mode			Can be operated with the same controls used for solenoid valves	7 points				
Network mode			Can be moved by direct numerical specification	768 points				
Pulse-train input control mode			Can be controlled using pulse trains	(—)				
Program control type 1 or 2 axes		SSEL-CS-1-60I-NP-2-①	Program operation is supported Up to two axes can be operated	20,000 points	3-phase 200 VAC (XSEL-P/Q only)	—	→ P685	
Program control type 1 or 6 axes		XSEL-①-1-60I-N1-EEE-2-3	Program operation is supported Up to six axes can be operated	20,000 points				—

* The values of SSEL and XSEL assume a 1-axis specification. * ① indicates the type of power-supply voltage (1: 100 V/2: Single-phase 200 V). * ① indicates the XSEL type (P/Q).

Please note that this model cannot be connected to the XSEL-P/Q type (5-axis/6-axis), XSEL-R/S type, or MSCON.

RCS2-TFA5N

Robo Cylinder, Mini Rod Type, Short-Length Flat type, Actuator Width 95mm, 200V Servo Motor, Ball Screw Specification

Model Specification Items	RCS2	TFA5N	I	60	<input type="checkbox"/>	<input type="checkbox"/>	T2	<input type="checkbox"/>	<input type="checkbox"/>
	Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
			I: Incremental specification	60: 60W Servo motor	10: 10mm 5: 5mm 2.5: 2.5mm	50: 50mm 75: 75mm	T2: SCON-CA SSEL XSEL-P/Q	N: None P: 1m S: 3m M: 5m X <input type="checkbox"/> <input type="checkbox"/> : Custom length R <input type="checkbox"/> <input type="checkbox"/> : Robot cable	See options below.

* See page Pre-47 for details on the model descriptions.



Technical References Appendix P.5

- POINT**
Notes on selection
- (1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for 2.5mm-lead) horizontally and 0.2G vertically. The acceleration limit is the value indicated above.
 - (2) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.
 - (3) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Feed Screw	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
RCS2-TFA5N-I-60-10- <input type="checkbox"/> -T2- <input type="checkbox"/> - <input type="checkbox"/>	60	Ball screw	10	5	1.5	89	±0.02	50 75
RCS2-TFA5N-I-60-5- <input type="checkbox"/> -T2- <input type="checkbox"/> - <input type="checkbox"/>			5	10	3	178		
RCS2-TFA5N-I-60-2.5- <input type="checkbox"/> -T2- <input type="checkbox"/> - <input type="checkbox"/>			2.5	20	6	356		

Stroke and Maximum Speed

Stroke Lead	50 (mm)	75 (mm)
	10	280<230>
5	250<230>	250
2.5	125	

Code explanation Stroke Cable length Options *See page A-71 for details on push motion.

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

① Stroke

① Stroke (mm)	Standard price
50	—
75	—

② Cable Length

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

* See page A-59 for cables for maintenance.

③ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
CE compliance	CE	→ A-42	—
Connector cable exits from the left	K1	→ A-51	—
Connector cable exits from the front	K2	→ A-51	—
Connector cable exits from the right	K3	→ A-51	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Lost Motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Allowable dynamic moment (*)	Ma: 15 N·m, Mb: 15 N·m, Mc: 7.1 N·m
Allowable static moment	Ma: 38.6 N·m, Mb: 38.6 N·m, Mc: 17.9 N·m
Overhang load length	Ma direction: 100mm or less, Mb, Mc direction: 100mm or less
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	5,000km or 50 million cycles

(*) Based on 5,000km of traveling life

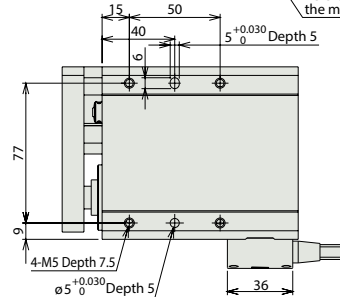
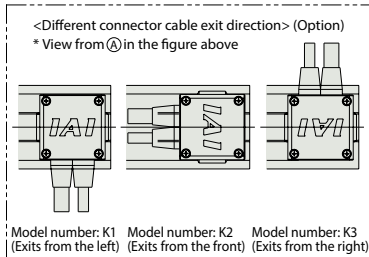
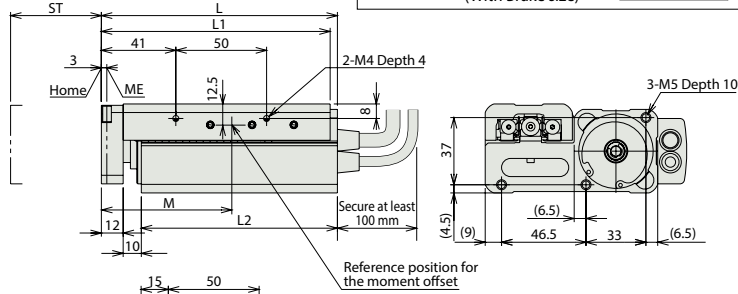
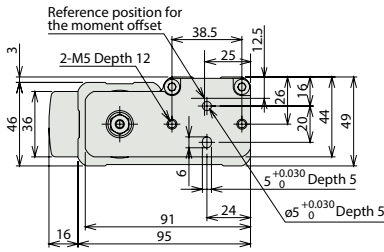
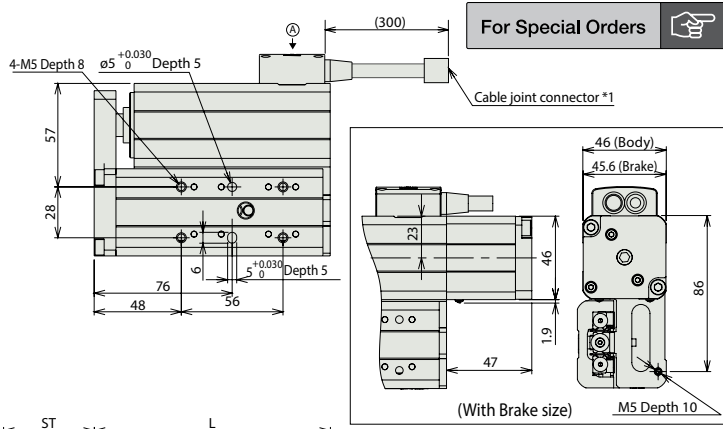
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RCS2-TFA5N

Dimensional Drawings

- (*1) Connect the motor-encoder integrated cable here.
- (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.

ST : Stroke
ME : Mechanical End



*Brake-equipped models are heavier by 0.26kg.

■ Dimensions and Weight by Stroke

Stroke	50	75
L	130	155
L1	126	151
L2	108	133
M	89	105.5
Weight (kg)	1.4	1.6

Applicable Controllers

RCS2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Positioner Type		SCON-CA-60I-NP-2-①	Up to 512 positioning points are supported	512 points	Single-phase 100 VAC	218 VA max.	—	→ P643
Solenoid mode			Can be operated with the same controls used for solenoid valves	7 points				
Network mode			Can be moved by direct numerical specification	768 points				
Pulse-train input control mode			Can be controlled using pulse trains	(—)				
Program control type 1 or 2 axes		SSEL-CS-1-60I-NP-2-①	Program operation is supported Up to two axes can be operated	20,000 points	3-phase 200 VAC (XSEL-P/Q only)	—	→ P685	
Program control type 1 or 6 axes		XSEL-①-1-60I-N1-EEE-2-3	Program operation is supported Up to six axes can be operated	20,000 points				—

* The values of SSEL and XSEL assume a 1-axis specification. * ① indicates the type of power-supply voltage (1: 100 V/2: Single-phase 200 V). * ① indicates the XSEL type (P/Q).

Please note that this model cannot be connected to the XSEL-P/Q type (5-axis/6-axis), XSEL-R/S type, or MSCON.

RCA-A4R

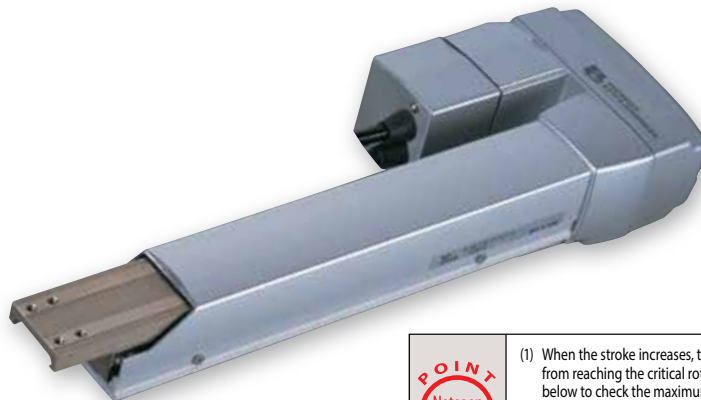
Robo Cylinder, Arm Type, Actuator Width 40mm, 24V Servo Motor, Side-mounted Motor

Model Specification Items	RCA	A4R	20						
	Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
	I: Incremental A: Absolute	20:20W Servo motor	10: 10mm 5: 5mm	50: 50mm 200: 200mm (50mm pitch increments)	A1: ACON ASEL A3: AMEC ASEP MSEP	N: None P: 1m S: 3m M: 5m X□□: Custom length R□□: Robot cable	See options below. * Be sure to specify which side the motor is to be mounted (MB/MR/ML)		

* See page Pre-47 for details on the model descriptions.



Power-saving



Technical References Appendix P.5

- POINT** Notes on selection
- 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.
 - The load capacity is based on operation at an acceleration of 0.2G. This is the upper limit of the acceleration.
 - See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCA-A4R-①-20-10-②-③-④-B-⑤	20	10	—	2.5	39.2	50~200 (every 50mm)
RCA-A4R-①-20-5-②-③-④-B-⑤		5	—	4.5	78.4	

Stroke and Maximum Speed

Stroke Lead	50~200 (every 50mm)
	10
5	165

Code explanation ① Encoder ② Stroke ③ Applicable Controller ④ Cable Length ⑤ Options *See page A-71 for details on push motion. (Unit: mm/s)

① Encoder Type/② Stroke

② Stroke (mm)	Standard price	
	① Encoder Type	
	Incremental	Absolute
50	I	A
100	—	—
150	—	—
200	—	—

④ Cable Length

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

* See page A-59 for cables for maintenance.

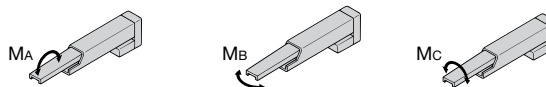
⑤ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Power-saving specification	LA	→ A-52	—
Bottom-mounted motor	MB	→ A-52	—
Right-mounted motor	MR	→ A-52	—
Left-mounted motor	ML	→ A-52	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø8mm, rolled C10 (ball screw speed reduced by 1/2 by timing belt)
Positioning repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Allowable dynamic moment	Ma: 2.7 N·m, Mb: 3.1 N·m, Mc: 2.9 N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

Directions of allowable load moments



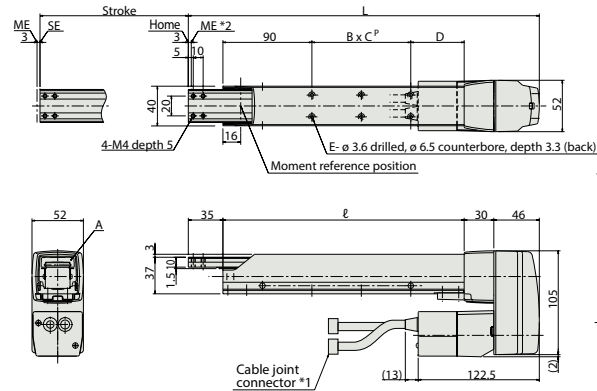
357 RCA-A4R

Dimensional Drawings

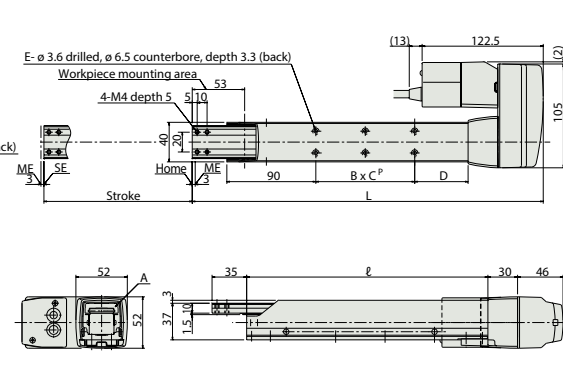
For Special Orders Appendix P.15

- (*1) Connect the motor and encoder cables here. See page A-59 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

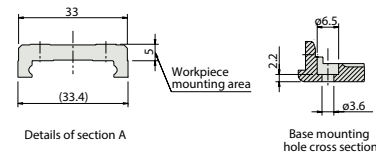
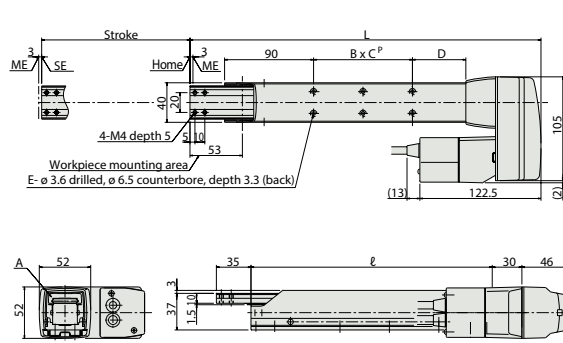
Bottom-mounted motor (option code: MB)



Right-mounted motor (option code: MR)



Left-mounted motor (option code: ML)



Dimensions and Weight by Stroke

Stroke	50	100	150	200
L	255	305	355	405
ℓ	144	194	244	294
B x C ^P	1×19	1×50	2×50	2×50
D	35	54	54	104
E	4	4	6	6
Weight (kg)	1.7	1.8	2.0	2.1

Applicable Controllers

RCA series actuators can be operated with the controllers indicated below. Select the type according to your intended application. ACON-CY also can be used.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		AMEC-C-20I-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P537
		ASEP-C-20I-2-0	Simple controller operable with the same signal as a solenoid valve					→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-20I-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	(Standard) 1.3A rated 4.4A max.	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-20I-V-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					
Positioner type		ACON-C-20I-2-0	Positioning is possible for up to 512 points	512 points	DC24V	(Power-saving) 1.3A rated 2.5A max.	—	→ P631
Safety-Compliant Positioner Type		ACON-CG-20I-2-0						
Pulse Train Input Type (Differential Line Driver)		ACON-PL-20I-2-0	Pulse train input type with differential line driver support	—	DC24V	(Power-saving) 1.3A rated 2.5A max.	—	→ P631
Pulse Train Input Type (Open Collector)		ACON-PO-20I-2-0	Pulse train input type with open collector support					
Serial Communication Type		ACON-SE-20I-N-0-0	Dedicated Serial Communication	64 points	DC24V	(Standard) 1.3A rated 4.4A max.	—	→ P675
Program Control Type		ASEL-CS-1-20I-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	(Power-saving) 1.3A rated 2.5A max.	—	→ P675

* This is for the single-axis ASEL. * (I) indicates encoder type (I: incremental, A: absolute) * Enter the code "LA" in (I) when the power-saving option is specified.
 * (N) indicates I/O type (NP/PN). * (V) indicates number of axes (1 to 8). * (V) indicates field network specification symbol.

- Slider Type
- Mini
- Standard
- Controllers Integrated
- Rod Type
- Mini
- Standard
- Controllers Integrated
- Table/Arm/Flat Type
- Mini
- Standard
- Gripper/Rotary Type
- Linear Servo Type
- Clean-room Type
- Splash-Proof Type
- Pulse Motor
- Servo Motor (24V)
- Servo Motor (200V)
- Linear Servo Motor

RCA-A5R

Robo Cylinder, Arm Type, Actuator Width 52mm, 24V Servo Motor, Side-mounted Motor

Model Specification Items	RCA	A5R	□	20	□	□	□	□	□
	Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
			I: Incremental A: Absolute	20: 20W Servo motor	12: 12mm 6: 6mm	50: 50mm ? 200: 200mm (50mm pitch increments)	A1: ACON ASEL A3: AMEC ASEP MSEP	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 (MB/MR/ML)

* See page Pre-47 for details on the model descriptions.



Power-saving



Technical References Appendix P.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 0.2G. This is the upper limit of the acceleration.
 - (3) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCA-A5R-①-20-12-②-③-④-B-⑤	20	12	—	2	33.3	50~200 (every 50mm)
RCA-A5R-①-20-6-②-③-④-B-⑤		6	—	4	65.7	

Stroke and Maximum Speed

Stroke Lead	50~200 (every 50mm)	
	12	400
6	200	

Code explanation ① Encoder ② Stroke ③ Applicable Controller ④ Cable Length ⑤ Options *See page A-71 for details on push motion. (Unit: mm/s)

① Encoder Type/② Stroke

② Stroke (mm)	Standard price	
	① Encoder Type	
	Incremental	Absolute
50	I	A
100	—	—
150	—	—
200	—	—

④ Cable Length

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

* See page A-59 for cables for maintenance.

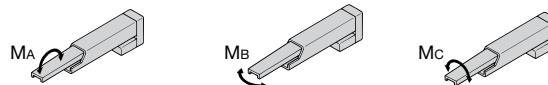
⑤ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Power-saving specification	LA	→ A-52	—
Bottom-mounted motor	MB	→ A-52	—
Right-mounted motor	MR	→ A-52	—
Left-mounted motor	ML	→ A-52	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø10mm, rolled C10 (ball screw speed reduced by 1/2 by timing belt)
Positioning repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Allowable dynamic moment	Ma: 4.5 N·m, Mb: 5.4 N·m, Mc: 4.1 N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

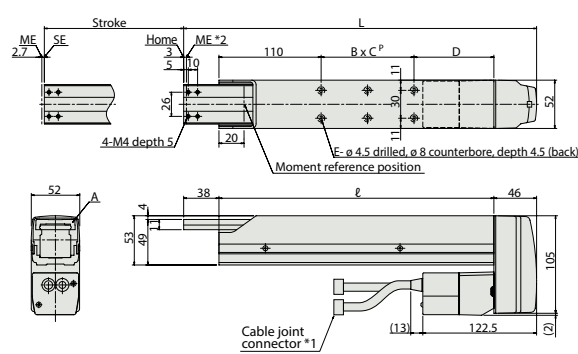
Directions of allowable load moments



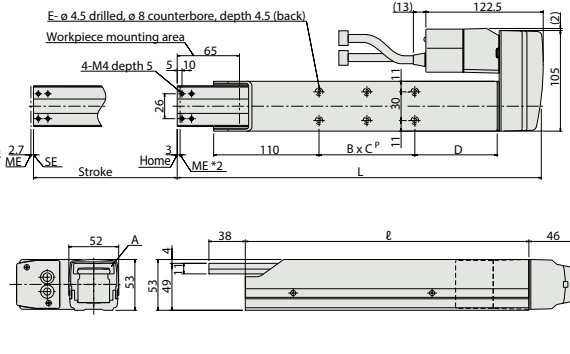
359 RCA-A5R

(*1) Connect the motor and encoder cables here. See page A-59 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

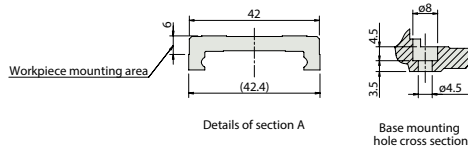
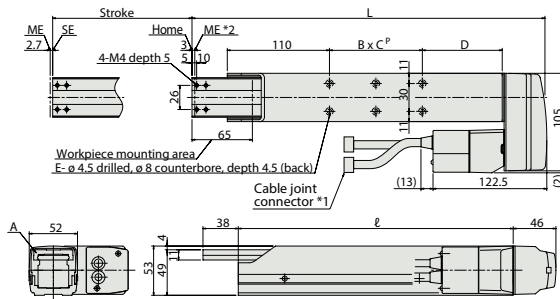
Bottom-mounted motor (option code: MB)



Right-mounted motor (option code: MR)



Left-mounted motor (option code: ML)



■ Dimensions and Weight by Stroke

Stroke	50	100	150	200
L	280	330	380	430
ℓ	196	246	296	346
B x C P	1×30	1×50	2×50	2×50
D	56	86	86	136
E	4	4	6	6
Weight (kg)	2.2	2.4	2.6	2.8

Note: The 50mm stroke model is only available with a right- or left-mounted motor. Please note that there is no 50mm stroke configuration for the standard model.

③ Applicable Controllers

RCA series actuators can be operated with the controllers indicated below. Select the type according to your intended application. ACON-CY also can be used.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		AMEC-C-20I-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P537
		ASEP-C-20I-2-0	Simple controller operable with the same signal as a solenoid valve					→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-20I-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	(Standard) 1.3A rated 4.4A max.	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-20I-V-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					→ P631
Positioner type		ACON-C-20I-2-0	Positioning is possible for up to 512 points	512 points	DC24V	(Power-saving) 1.3A rated 2.5A max.	—	→ P675
Safety-Compliant Positioner Type		ACON-CG-20I-2-0						
Pulse Train Input Type (Differential Line Driver)		ACON-PL-20I-2-0	Pulse train input type with differential line driver support	—	DC24V	(Power-saving) 1.3A rated 2.5A max.	—	→ P631
Pulse Train Input Type (Open Collector)		ACON-PO-20I-2-0	Pulse train input type with open collector support					
Serial Communication Type		ACON-SE-20I-N-0-0	Dedicated Serial Communication	64 points	DC24V	(Standard) 1.3A rated 4.4A max.	—	→ P675
Program Control Type		ASEL-CS-1-20I-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	(Power-saving) 1.3A rated 2.5A max.	—	→ P675

* This is for the single-axis ASEL.
 * indicates I/O type (NP/PN).

* indicates encoder type (I: incremental, A: absolute)
 * indicates number of axes (1 to 8).

* Enter the code "LA" in when the power-saving option is specified.
 * indicates field network specification symbol.

RCA-A6R

Robo Cylinder, Arm Type, Actuator Width 58mm, 24V Servo Motor, Side-mounted Motor

Model Specification Items	RCA	A6R	30					
	Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length
	I: Incremental A: Absolute		30: 30W Servo motor	12: 12mm 6: 6mm	50: 50mm 200: 200mm (50mm pitch increments)	A1: ACON ASEL A3: AMEC ASEP MSEP	N: None P: 1m S: 3m M: 5m X□□: Custom length R□□: Robot cable	See options below. * Be sure to specify which side the motor is to be mounted (MB/MR/ML)

* See page Pre-47 for details on the model descriptions.



Power-saving



Technical References Appendix P.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 0.2G. This is the upper limit of the acceleration.
 - (3) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCA-A6R-①-30-12-②-③-④-B-⑤	30	12	—	3	48.4	50~200 (every 50mm)
RCA-A6R-①-30-6-②-③-④-B-⑤		6	—	6	96.8	

Stroke and Maximum Speed

Stroke Lead	50~200 (every 50mm)
	12
6	200

Code explanation ① Encoder ② Stroke ③ Applicable Controller ④ Cable Length ⑤ Options *See page A-71 for details on push motion. (Unit: mm/s)

① Encoder Type/② Stroke

② Stroke (mm)	Standard price	
	① Encoder Type	
	Incremental	Absolute
50	I	A
100	—	—
150	—	—
200	—	—

④ Cable Length

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

* See page A-59 for cables for maintenance.

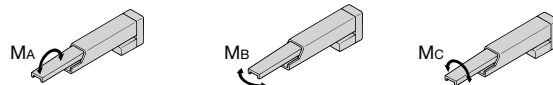
⑤ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Power-saving specification	LA	→ A-52	—
Bottom-mounted motor	MB	→ A-52	—
Right-mounted motor	MR	→ A-52	—
Left-mounted motor	ML	→ A-52	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø10mm, rolled C10 (ball screw speed reduced by 1/2 by timing belt)
Positioning repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Allowable dynamic moment	Ma: 8.1 N·m, Mb: 10.0 N·m, Mc: 6.5 N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

Directions of allowable load moments



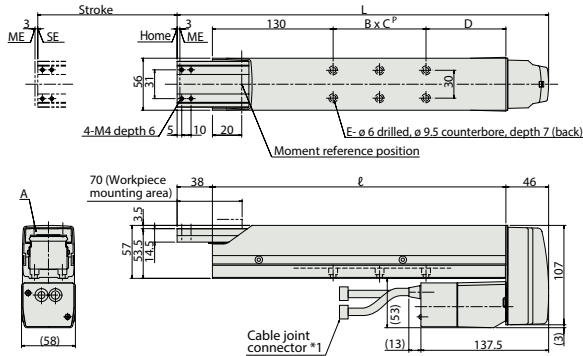
361 RCA-A6R

Dimensional Drawings

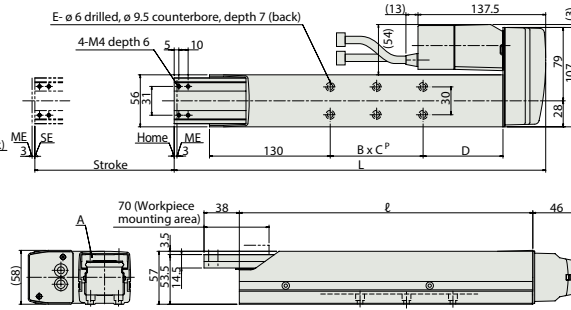
For Special Orders Appendix P.15

(*1) Connect the motor and encoder cables here. See page A-59 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

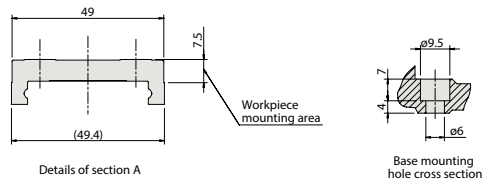
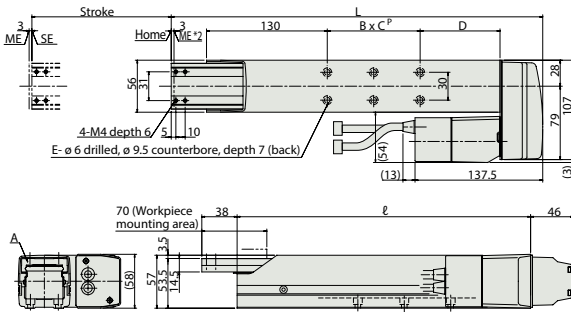
Bottom-mounted motor (option code: MB)



Right-mounted motor (option code: MR)



Left-mounted motor (option code: ML)



Dimensions and Weight by Stroke

Stroke	50	100	150	200
L	300	350	400	450
ℓ	216	266	316	366
B x C ^P	1×30	1×50	2×50	2×50
D	56	86	86	136
E	4	4	6	6
Weight (kg)	3.0	3.3	3.6	3.9

Note: The 50mm stroke model is only available with a right- or left-mounted motor. Please note that there is no 50mm stroke configuration for the standard model.

Applicable Controllers

RCA series actuators can be operated with the controllers indicated below. Select the type according to your intended application. ACON-CY also can be used.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		AMEC-C-30I-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P537
		ASEP-C-30I-2-0	Simple controller operable with the same signal as a solenoid valve					→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	(Standard) 1.3A rated 4.4A max.	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-V-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					→ P631
Positioner type		ACON-C-30I-2-0	Positioning is possible for up to 512 points	512 points	DC24V	(Power-saving) 1.3A rated 2.2A max.	—	—
Safety-Compliant Positioner Type		ACON-CG-30I-2-0						
Pulse Train Input Type (Differential Line Driver)		ACON-PL-30I-2-0	Pulse train input type with differential line driver support	(—)	DC24V	(Power-saving) 1.3A rated 2.2A max.	—	→ P631
Pulse Train Input Type (Open Collector)		ACON-PO-30I-2-0						
Serial Communication Type		ACON-SE-30I-N-0-0	Dedicated Serial Communication	64 points	DC24V	(Power-saving) 1.3A rated 2.2A max.	—	—
Program Control Type		ASEL-CS-1-30I-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	(Power-saving) 1.3A rated 2.2A max.	—	→ P675

* This is for the single-axis ASEL.
 * indicates I/O type (NP/PN).

* indicates encoder type (I: incremental, A: absolute)
 * indicates number of axes (1 to 8).

* Enter the code "LA" in when the power-saving option is specified.
 * indicates field network specification symbol.

Slider Type

Mini

Standard

Controllers Integrated

Rod Type

Mini

Standard

Controllers Integrated

Table/ Arm/ Flat Type

Mini

Standard

Gripper/ Rotary Type

Linear Servo Type

Clean-room Type

Splash-Proof Type

Pulse Motor

Servo Motor (24V)

Servo Motor (200V)

Linear Servo Motor

RCS2-A4R

Robo Cylinder, Arm Type, Actuator Width 40mm, 200V Servo Motor, Side-mounted Motor

Model Specification Items	RCS2	A4R	Encoder type	20	Lead	Stroke	Applicable controller	Cable length	Options
	Series	Type	I: Incremental A: Absolute	20: 20W Servo motor	10: 10mm 5: 5mm	50: 50mm 200: 200mm (50mm pitch increments)	T1: XSEL-J/K T2: SCON MSCON SSEL XSEL-P/Q XSEL-R/S	N: None P: 1m S: 3m M: 5m X□□: Custom length R□□: Robot cable	See options below. * Be sure to specify which side the motor is to be mounted (MB/MR/ML)

* See page Pre-47 for details on the model descriptions.



*CE compliance is optional.



Technical References Appendix P.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 0.2G. This is the upper limit of the acceleration.
 - (3) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCS2-A4R-①-20-10-②-③-④-B-⑤	20	10	—	2.5	39.2	50~200 (every 50mm)
RCS2-A4R-①-20-5-②-③-④-B-⑤		5	—	4.5	78.4	

Stroke and Maximum Speed

Stroke Lead	50~200 (every 50mm)
	10
5	165

Code explanation ① Encoder ② Stroke ③ Applicable Controller ④ Cable Length ⑤ Options *See page A-71 for details on push motion. (Unit: mm/s)

① Encoder Type/② Stroke

② Stroke (mm)	Standard price	
	① Encoder Type	
	Incremental	Absolute
50	I	A
100	—	—
150	—	—
200	—	—

④ Cable Length

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

* See page A-59 for cables for maintenance.

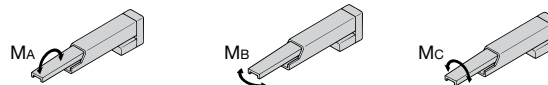
⑤ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
CE compliance	CE	→ A-42	—
Bottom-mounted motor	MB	→ A-52	—
Right-mounted motor	MR	→ A-52	—
Left-mounted motor	ML	→ A-52	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø8mm, rolled C10 (ball screw speed reduced by 1/2 by timing belt)
Positioning repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Allowable dynamic moment	Ma: 2.7 N·m, Mb: 3.1 N·m, Mc: 2.9 N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

Directions of allowable load moments



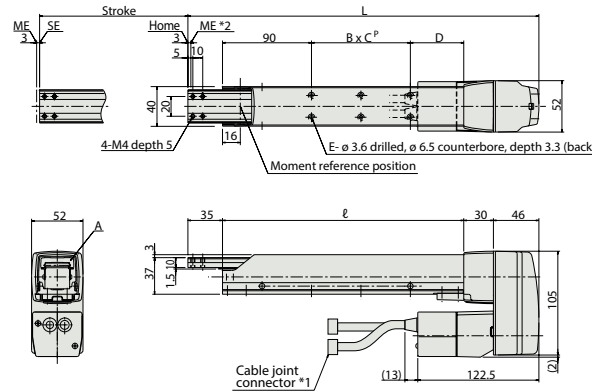
363 RCS2-A4R

Dimensional Drawings

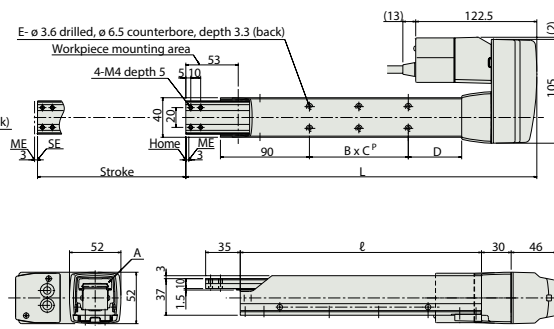
For Special Orders Appendix P.15

(*1) Connect the motor and encoder cables here. See page A-59 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

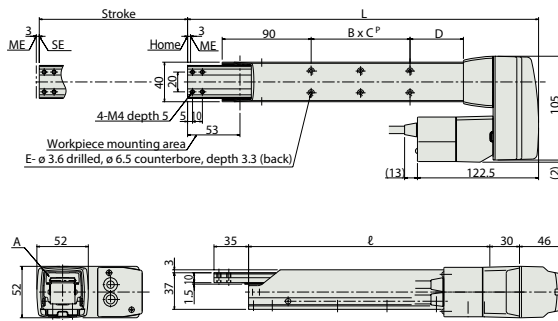
Bottom-mounted motor (option code: MB)



Right-mounted motor (option code: MR)



Left-mounted motor (option code: ML)



Dimensions and Weight by Stroke

Stroke	50	100	150	200
L	255	305	355	405
ℓ	144	194	244	294
B x C ^P	1×19	1×50	2×50	2×50
D	35	54	54	104
E	4	4	6	6
Weight (kg)	1.7	1.8	2.0	2.1

Applicable Controllers

RCS2-series actuators can be operated with the following controllers. Select an appropriate controller type according to your application.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power supply capacity	Standard price	Reference page	
Positioner mode		SCON-CA-20①-NP-2-②	Up to 512 positioning points are supported.	512 points	Single-phase 100VAC Single-phase 200VAC 3-phase 200VAC (XSEL-P/Q/R/S ONLY)	106 VA max. *Power supply capacity will vary depending on the controller, so please refer to the instruction manual for details.	—	→ P643	
Solenoid valve mode			Actuators can be operated through the same control used for solenoid valves.	7 points					
Field network type			Movement by numerical specification is supported.	768 points					
Pulse-train input control type			Dedicated pulse-train input type	(-)					
Positioner multi-axis, network type		MSCON-C-1-20①-④-0-③	Up to 6 axes can be operated. Movement by numerical specification is supported.	256 points	—	—	→ P655		
Program control type, 1 to 2 axes		SSEL-CS-1-20①-NP-2-②	Program operation is supported. Up to 2 axes can be operated.	20000 points				—	→ P685
Program control type, 1 to 8 axes		XSEL-④-1-20①-N1-EEE-2-④	Program operation is supported. Up to 8 axes can be operated.	Varies depending on the number of axis connected					

* This is for the single-axis MSCON, SSEL, and XSEL.

* ① indicates the power-supply voltage type (1: 100V / 2: Single-phase 200V).

* ② indicates the power-supply voltage type (1: 100V / 2: Single-phase 200V / 3: Three-phase 200V).

* ① indicates the encoder type (I: Incremental / A: Absolute).

* ④ indicates the XSEL type (J / K / P / Q / R / S).

* ④ indicates field network specification symbol.

Slider Type

Mini

Standard

Controllers Integrated

Rod Type

Mini

Standard

Controllers Integrated

Table/ Arm/ Flat Type

Mini

Standard

Gripper/ Rotary Type

Linear Servo Type

Clean-room Type

Splash-Proof Type

Pulse Motor

Servo Motor (24V)

Servo Motor (200V)

Linear Servo Motor

RCS2-A5R

Robo Cylinder, Arm Type, Actuator Width 52mm, 200V Servo Motor, Side-mounted Motor

Model Specification Items	RCS2 Series	A5R Type	Encoder type	20 Motor type	Lead	Stroke	Applicable controller	Cable length	Options
			I: Incremental A: Absolute	20: 20W Servo motor	12: 12mm 6: 6mm	50: 50mm 200: 200mm (50mm pitch increments)	T1: XSEL-J/K T2: SCON MSCON SSEL XSEL-P/Q XSEL-R/S	N: None P: 1m S: 3m M: 5m X□□: Custom length R□□: Robot cable	See options below. * Be sure to specify which side the motor is to be mounted (MB/MR/ML)

* See page Pre-47 for details on the model descriptions.



*CE compliance is optional.



Technical References Appendix P.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 0.2G. This is the upper limit of the acceleration.
 - (3) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCS2-A5R-①-20-12-②-③-④-B-⑤	20	12	—	2	33.3	50~200 (every 50mm)
RCS2-A5R-①-20-6-②-③-④-B-⑤		6	—	4	65.7	

Stroke and Maximum Speed

Stroke Lead	50~200 (every 50mm)
	12
6	200

Code explanation ① Encoder ② Stroke ③ Applicable Controller ④ Cable Length ⑤ Options *See page A-71 for details on push motion. (Unit: mm/s)

① Encoder Type/② Stroke

② Stroke (mm)	Standard price	
	① Encoder Type	
	Incremental	Absolute
50	I	A
100	—	—
150	—	—
200	—	—

④ Cable Length

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

* See page A-59 for cables for maintenance.

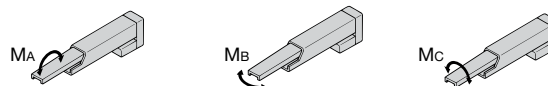
⑤ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
CE compliance	CE	→ A-42	—
Bottom-mounted motor	MB	→ A-52	—
Right-mounted motor	MR	→ A-52	—
Left-mounted motor	ML	→ A-52	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø10mm, rolled C10 (ball screw speed reduced by 1/2 by timing belt)
Positioning repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Allowable dynamic moment	Ma: 4.5 N·m, Mb: 5.4 N·m, Mc: 4.1 N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

Directions of allowable load moments



365

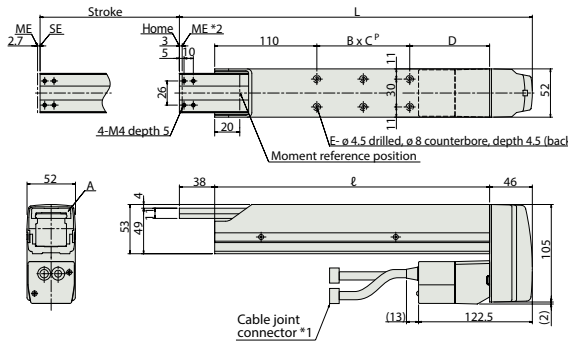
RCS2-A5R

Dimensional Drawings

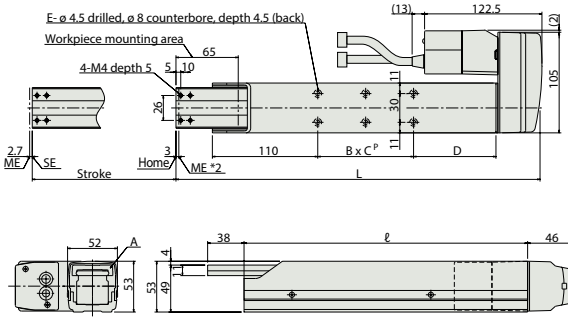
For Special Orders Appendix P.15

- (*1) Connect the motor and encoder cables here. See page A-59 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

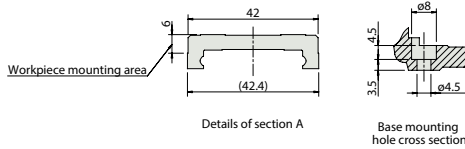
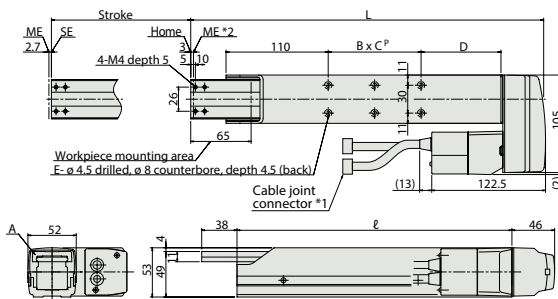
Bottom-mounted motor (option code: MB)



Right-mounted motor (option code: MR)



Left-mounted motor (option code: ML)



■ Dimensions and Weight by Stroke

Stroke	50	100	150	200
L	280	330	380	430
ℓ	196	246	296	346
B x C ^P	1×30	1×50	2×50	2×50
D	56	86	86	136
E	4	4	6	6
Weight (kg)	2.2	2.4	2.6	2.8

Note: The 50mm stroke model is only available with a right- or left-mounted motor. Please note that there is no 50mm stroke configuration for the standard model.

③ Applicable Controllers

RCS2-series actuators can be operated with the following controllers. Select an appropriate controller type according to your application.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power supply capacity	Standard price	Reference page			
Positioner mode		SCON-CA-20①-NP-2-②	Up to 512 positioning points are supported.	512 points	Single-phase 100VAC Single-phase 200VAC 3-phase 200VAC (XSEL-P/Q/R/S ONLY)	106 VA max. *Power supply capacity will vary depending on the controller, so please refer to the instruction manual for details.	—	→ P643			
Solenoid valve mode			Actuators can be operated through the same control used for solenoid valves.	7 points							
Field network type			Movement by numerical specification is supported.	768 points							
Pulse-train input control type			Dedicated pulse-train input type	(-)							
Positioner multi-axis, network type		MSCON-C-1-20①-④-0-③	Up to 6 axes can be operated. Movement by numerical specification is supported.	256 points			—	→ P655			
Program control type, 1 to 2 axes		SSEL-CS-1-20①-NP-2-④	Program operation is supported. Up to 2 axes can be operated.	20000 points						—	→ P685
Program control type, 1 to 8 axes		XSEL-⑤-1-20①-N1-EEE-2-⑥	Program operation is supported. Up to 8 axes can be operated.	Varies depending on the number of axis connected							

* This is for the single-axis MSCON, SSEL, and XSEL.

* ① indicates the power-supply voltage type (1: 100V / 2: Single-phase 200V).

* ② indicates the power-supply voltage type (1: 100V / 2: Single-phase 200V / 3: Three-phase 200V).

* ① indicates the encoder type (I: Incremental / A: Absolute).

* ⑤ indicates the XSEL type (J / K / P / Q / R / S).

* ⑥ indicates field network specification symbol.

RCS2-A6R

Robo Cylinder, Arm Type, Actuator Width 58mm, 200V Servo Motor, Side-mounted Motor

Model Specification Items	RCS2 — Series	A6R — Type	<input type="checkbox"/> — Encoder type	30 — Motor type	<input type="checkbox"/> — Lead	<input type="checkbox"/> — Stroke	<input type="checkbox"/> — Applicable controller	<input type="checkbox"/> — Cable length	<input type="checkbox"/> — Options
			I: Incremental A: Absolute	30: 30W Servo motor	12: 12mm 6: 6mm	50: 50mm 200: 200mm (50mm pitch increments)	T1: XSEL-J/K T2: SCON MSCON SSEL XSEL-P/Q XSEL-R/S	N: None P: 1m S: 3m M: 5m X□□: Custom length R□□: Robot cable	See options below. * Be sure to specify which side the motor is to be mounted (MB/MR/ML)

* See page Pre-47 for details on the model descriptions.



*CE compliance is optional.



Technical References Appendix P.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 0.2G. This is the upper limit of the acceleration.
 - (3) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCS2-A6R-①-30-12-②-③-④-B-⑤	30	12	—	3	48.4	50~200 (every 50mm)
RCS2-A6R-①-30-6-②-③-④-B-⑤		6	—	6	96.8	

Stroke and Maximum Speed

Stroke Lead	50~200 (every 50mm)
	12
6	200

Code explanation ① Encoder ② Stroke ③ Applicable Controller ④ Cable Length ⑤ Options *See page A-71 for details on push motion. (Unit: mm/s)

① Encoder Type/② Stroke

② Stroke (mm)	Standard price	
	① Encoder Type	
	Incremental	Absolute
	I	A
50	—	—
100	—	—
150	—	—
200	—	—

④ Cable Length

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

* See page A-59 for cables for maintenance.

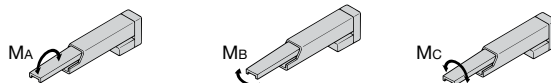
⑤ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
CE compliance	CE	→ A-42	—
Bottom-mounted motor	MB	→ A-52	—
Right-mounted motor	MR	→ A-52	—
Left-mounted motor	ML	→ A-52	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø10mm, rolled C10 (ball screw speed reduced by 1/2 by timing belt)
Positioning repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Allowable dynamic moment	Ma: 8.1 N·m, Mb: 10.0 N·m, Mc: 6.5 N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

Directions of allowable load moments



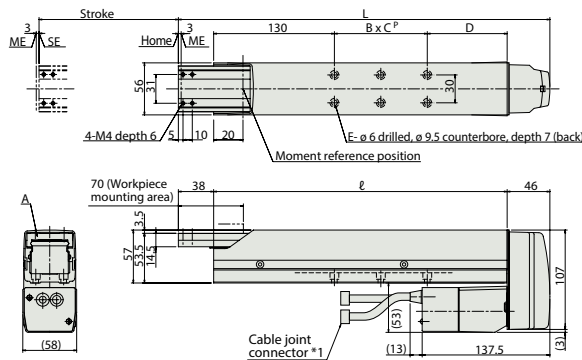
367 RCS2-A6R

Dimensional Drawings

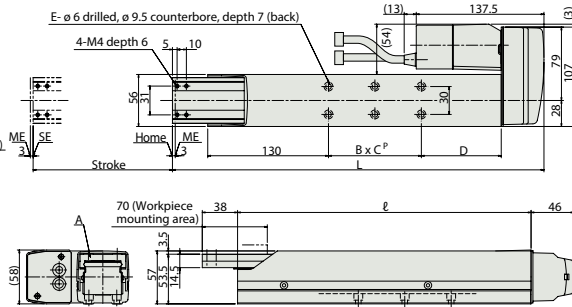
For Special Orders Appendix P.15

- (*1) Connect the motor and encoder cables here. See page A-59 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

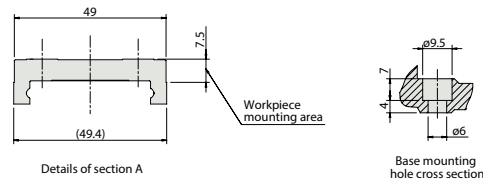
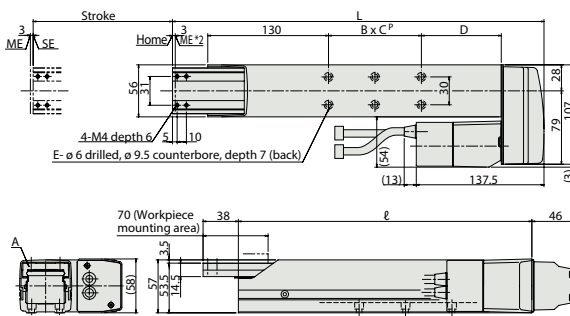
Bottom-mounted motor (option code: MB)



Right-mounted motor (option code: MR)



Left-mounted motor (option code: ML)



■ Dimensions and Weight by Stroke

Stroke	50	100	150	200
L	300	350	400	450
ℓ	216	266	316	366
B x C ^P	1x30	1x50	2x50	2x50
D	56	86	86	136
E	4	4	6	6
Weight (kg)	3.0	3.3	3.6	3.9

Note: The 50mm stroke model is only available with a right- or left-mounted motor. Please note that there is no 50mm stroke configuration for the standard model.

③ Applicable Controllers

RCS2-series actuators can be operated with the following controllers. Select an appropriate controller type according to your application.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power supply capacity	Standard price	Reference page		
Positioner mode		SCON-CA-30①-NP-2-②	Up to 512 positioning points are supported.	512 points	Single-phase 100VAC Single-phase 200VAC 3-phase 200VAC (XSEL-P/Q/R/S ONLY)	126 VA max. *Power supply capacity will vary depending on the controller, so please refer to the instruction manual for details.	—	→ P643		
Solenoid valve mode			Actuators can be operated through the same control used for solenoid valves.	7 points						
Field network type			Movement by numerical specification is supported.	768 points						
Pulse-train input control type			Dedicated pulse-train input type	(-)						
Positioner multi-axis, network type		MSCON-C-1-30①-④-0-②	Up to 6 axes can be operated. Movement by numerical specification is supported.	256 points	Single-phase 100VAC Single-phase 200VAC 3-phase 200VAC (XSEL-P/Q/R/S ONLY)	126 VA max. *Power supply capacity will vary depending on the controller, so please refer to the instruction manual for details.	—	→ P655		
Program control type, 1 to 2 axes		SSEL-CS-1-30①-NP-2-②	Program operation is supported. Up to 2 axes can be operated.	20000 points					—	→ P685
Program control type, 1 to 8 axes		XSEL-③-1-30①-N1-EEE-2-④	Program operation is supported. Up to 8 axes can be operated.	Varies depending on the number of axis connected						

* This is for the single-axis MSCON, SSEL, and XSEL.

* ① indicates the power-supply voltage type (1: 100V / 2: Single-phase 200V).

* ② indicates the power-supply voltage type (1: 100V / 2: Single-phase 200V / 3: Three-phase 200V).

* ① indicates the encoder type (I: Incremental / A: Absolute).

* ③ indicates the XSEL type (J / K / P / Q / R / S).

* ④ indicates field network specification symbol.

RCS2-F5D

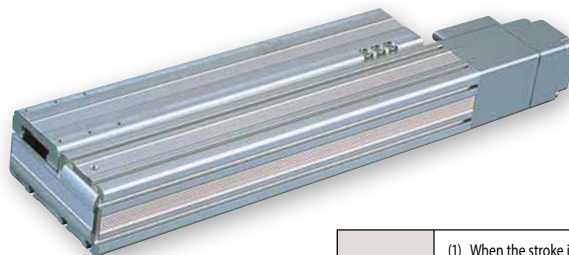
Robo Cylinder, Flat Type, Actuator Width 55mm, 200V Servo Motor, Built-In (Direct-Coupled) Motor

Model Specification Items	RCS2	F5D							
	Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
			I: Incremental A: Absolute	60: 60W Servo motor 100: 100W Servo motor	16: 16mm 8: 8mm 4: 4mm	50: 50mm 300: 300mm (50mm pitch increments)	T1: XSEL-J/K T2: SCON MSCON SSEL XSEL-P/Q XSEL-R/S	N: None P: 1m S: 3m M: 5m X□□: Custom R□□: Robot cable	See options below.

* See page Pre-47 for details on the model descriptions.



*CE compliance is optional.



Technical References Appendix P.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 4mm-lead model). This is the upper limit of the acceleration.
 - (3) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Stroke (mm)	
			Horizontal (kg)	Vertical (kg)			
RCS2-F5D-①-60-16-②-③-④-⑤	60	16	See page A-120	2.0	63.8	50~300 (every 50mm)	
RCS2-F5D-①-60-8-②-③-④-⑤		8		5.0			127.5
RCS2-F5D-①-60-4-②-③-④-⑤		4		11.5			255.1
RCS2-F5D-①-100-16-②-③-④-⑤	100	16	3.5	105.8			
RCS2-F5D-①-100-8-②-③-④-⑤		8	9.0	212.7			
RCS2-F5D-①-100-4-②-③-④-⑤		4	18.0	424.3			

Stroke and Maximum Speed

Stroke Lead	50~300 (every 50mm)	
	Stroke (mm)	50~300 (every 50mm)
16	800	
8	400	
4	200	

(Unit: mm/s)

Code explanation ① Encoder ② Stroke ③ Applicable Controller ④ Cable Length ⑤ Options *See page A-71 for details on push motion.

① Encoder Type/② Stroke

② Stroke (mm)	Standard price			
	① Encoder Type			
	Incremental		Absolute	
	Motor Output (W)		Motor Output (W)	
	60W	100W	60W	100W
50	—	—	—	—
100	—	—	—	—
150	—	—	—	—
200	—	—	—	—
250	—	—	—	—
300	—	—	—	—

④ Cable Length

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

* See page A-59 for cables for maintenance.

⑤ Options

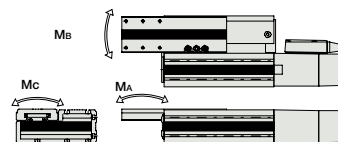
Name	Option code	See page	Standard price
Brake	B	→ A-42	—
CE compliance	CE	→ A-42	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø12mm, rolled C10
Positioning repeatability	±0.02mm
Lost Motion	0.05mm or less
Base	Material: Aluminum, white alumite treated
Allowable dynamic moment (*)	Ma: 4.5 N·m, Mb: 5.4 N·m, Mc: 4.1 N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

(*) Based on 5,000km of traveling life

Directions of allowable load moments

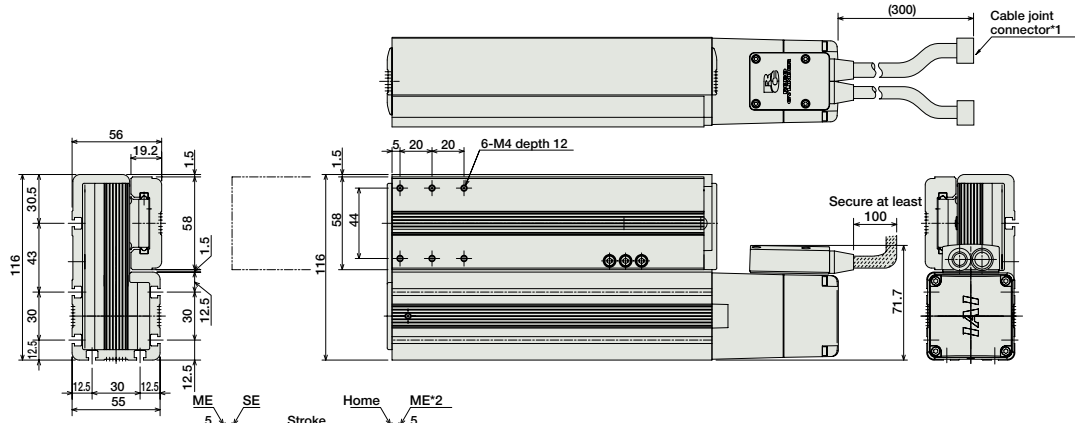


369 RCS2-F5D

Dimensional Drawings

For Special Orders Appendix P.15

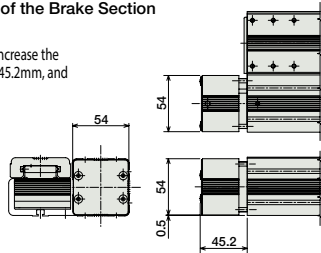
*To change the direction of the home position, arrangements must be made to send in the product. Please make a note of it.



(*1) Connect the motor and encoder cables here. See page A-59 for details on cables. ME : Mechanical end SE : Stroke end

Dimensions of the Brake Section

*Adding a brake will increase the actuator's length by 45.2mm, and its weight by 0.4kg.



Details of the T-Slot, 7 places

Dimensions and Weight by Stroke

Stroke	50	100	150	200	250	300		
L	60W	232	282	332	382	432	482	
	100W	250	300	350	400	450	500	
ℓ	60W	150	200	250	300	350	400	
	100W							97
m	60W							79
	100W							97
Weight (kg)	60W	2.1	2.5	3	3.4	3.9	4.3	
	100W	2.3	2.7	3.2	3.6	4.1	4.5	

③ Applicable Controllers

RCS2-series actuators can be operated with the following controllers. Select an appropriate controller type according to your application.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power supply capacity	Standard price	Reference page
Positioner mode		SCON-CA-60①-NP-2-② SCON-CA-100①-NP-2-②	Up to 512 positioning points are supported.	512 points	Single-phase 100VAC Single-phase 200VAC 3-phase 200VAC (XSEL-P/Q/R/S ONLY)	314 VA max. *Power supply capacity will vary depending on the controller, so please refer to the instruction manual for details.	Refer to P644	→ P643
Solenoid valve mode			Actuators can be operated through the same control used for solenoid valves.	7 points				
Field network type			Movement by numerical specification is supported.	768 points				
Pulse-train input control type			Dedicated pulse-train input type	(-)				
Positioner multi-axis, network type		MSCON-C-1-60①-④-0-② MSCON-C-1-100①-④-0-②	Up to 6 axes can be operated. Movement by numerical specification is supported.	256 points			Refer to P656	→ P655
Program control type, 1 to 2 axes		SSEL-CS-1-60①-NP-2-② SSEL-CS-1-100①-NP-2-②	Program operation is supported. Up to 2 axes can be operated.	20000 points				→ P685
Program control type, 1 to 8 axes		XSEL-④-1-60①-N1-EEE-2-④ XSEL-④-1-100①-N1-EEE-2-④	Program operation is supported. Up to 8 axes can be operated.	Varies depending on the number of axis connected				→ P695

* This is for the single-axis MSCON, SSEL, and XSEL.

* ① indicates the power-supply voltage type (1: 100V / 2: Single-phase 200V).

* ④ indicates the power-supply voltage type (1: 100 V / 2: Single-phase 200V / 3: Three-phase 200V).

* ① indicates the encoder type (I: Incremental / A: Absolute).

* ④ indicates the XSEL type (J / K / P / Q / R / S).

* ④ indicates field network specification symbol.

Slider Type

Mini

Standard

Controllers Integrated

Rod Type

Mini

Standard

Controllers Integrated

Table/ Arm/ Flat Type

Mini

Standard

Gripper/ Rotary Type

Linear Servo Type

Clean-room Type

Splash-Proof Type

Pulse Motor

Servo Motor (24V)

Servo Motor (200V)

Linear Servo Motor