

Table Type / Arm Type Flat Type

RCP3 RCA2 RCA RCS2







301 Table Type / Arm Type / Flat Type

Table Type / Arm Type / Flat Type

	Mini Table Type	Inline Motor	36mm Width	RCP3-TA3C	303
			40mm Width	RCP3-TA4C	305
RCP3	Table Type	Inline Motor	55mm Width	RCP3-TA5C	307
			65mm Width	RCP3-TA6C	309
series			75mm Width	RCP3-TA7C	311
Pulse	Mini Table Type	Side-Mounted Motor	36mm Width	RCP3-TA3R	313
Motor			40mm Width	RCP3-TA4R	315
Туре	Table Type	Side-Mounted Motor	55mm Width	RCP3-TA5R	317
			65mm Width	RCP3-TA6R	319
			75mm Width	RCP3-TA7R	321
	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
RCA2		Short-Length Flat Model	61mm Width	RCA2-TFA3NA	331
series			71mm Width	RCA2-TFA4NA	333
		Inline Motor	40mm Width	RCA2-TA4C	335
24V Servo			55mm Width	RCA2-TA5C	337
Motor	Table Type	Inline Motor	65mm Width	RCA2-TA6C	339
Туре			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
DCAS	Arm Type		40mm Width	RCA-A4R	357
RCA2	, , , , , , , , , , , , , , , , , , ,		52mm Width	RCA-A5R	359
series			58mm Width	RCA-A6R	361
24V Servo					
Motor Type					
	Mini Talala Tura	Short-Length Compact Model	40 145 141	DCC2 TCAEN	254
	Mini Table Type	Short-Length Wide Model	48mm Width	RCS2-TCA5N	351 353
RCS2		Short-Length Flat Model	80mm Width	RCS2-TWA5N	
series	Arm Type	Short-Length Flat Model	95mm Width 40mm Width	RCS2-TFA5N RCS2-A4R	355 363
200V Servo	Annrype		52mm Width	RCS2-A4R RCS2-A5R	365
Motor Type			58mm Width	RCS2-ASR RCS2-A6R	367
	Flat Type			RCS2-A6R RCS2-F5D	369
	i iai iype		55mm Width	KC32-F3D	202

Table/ Arm/ Flat Type

Table Type / Arm Type / Flat Type 302



Table Arm Flat Typ

RCP3 - TA3C20P Specification Items Type — Encoder type — Motor type — Lead Stroke Applicable controller – Cable length Options N: None See P: 1m S: 3m M:5m X: Custom Length I: Incremental * The Simple absolute P1: PCON-PL/PO/SE PSEL 20P: Pulse motor, 6:6mm 20: 20mm See Options below. 20□ size 4:4mm 100: 100mm (10mm pitch increments) encoder is also P3: PCON-CA 2:2mm considered type "I". PMEC/PSEP MSEP * See page Pre-47 for details on the model descriptions.

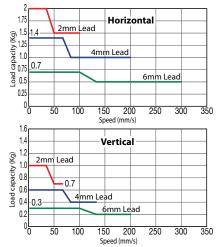
[CE] RoHS



- (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. ■ Stroke and Maximum Speed (Unit: mm/							(Unit: mm/s)			
Model number	Feed Screw		Max. Load Co Horizontal (kg)	apacity (Note 1) Vertical (kg)	Rated thrust (N)	Stroke (mm)	Lea	Stroke	20~100 (mm)	
RCP3-TA3C-I-20P-6-①-②-③-④		6	~0.7	~0.3	15		N.	6	300<200>	
RCP3-TA3C-I-20P-4-①-②-③-④	Ball screw	4	~1.4	~0.6	22	20~100 (every 10mm)	Ball screw	4	200<133>	
RCP3-TA3C-I-20P-2-①-②-③-④		2	~2	~1	45		B B	2	100<67>	
Code explanation ① Stroke ② Applic	able Controll	er ③	Cable len	gth ④Op	tions *See	page A-71 for details	on push	motion. * The	values enclosed in < > apply to	vertical settings

Technical

References

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

④ Options			
Name	Option code	See page	Standard price
Brake	В	→ A-42	_
Non-motor end specification	NM	→ A-52	_

③Cable Length			
Туре	Cable symbol	Standard price	
Standard	P (1m)	_	
(Robot Cables)	S (3m)	_	
(nonot capies)	M (5m)	_	
	X06 (6m) ~ X10 (10m)	_	
Special length	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.

Actuator Specifications

ltem	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





ST: Stroke ME: Mechanical end

0.5 0.6 0.6 0.6 0.6 0.7 0.7

SE: Stroke end

For Special Orders

Motor/encoder Gx40 H-M3 Depth 5mm Cable connector*1 ø3H7 Depth 3.5mm (From the table top) For brake specification: * The above brake unit is added to area (A).

Allow for at least 100mm 102.5 3-M4 Depth 6n Reference position for the moment o set ME *2

50 (Reamer and oblong hole pitch) J-M3 (F De<u>pth 5m</u>m ₹T⊚ 0 <u>o</u> 0 0 ø3H7 Depth 3.5mm (From the bottom of the base)

7.5

■ Dimensions and Weight by Stroke

0.5 0.5

Weight (kg)

*Brake-equipped models are heavier by 0.1kg.
 20
 30
 40
 50
 60
 70
 80
 90
 100

 224
 234
 244
 254
 264
 274
 284
 294
 304
 Without brake 262 272 282 292 302 312 322 332 342 87.5 97.5 107.5 117.5 127.5 137.5 147.5 157.7 167.5 With brake 95.5 105.5 115.1 125.5 135.5 145.5 155.5 165.5 175.5 121.5 131.5 141.5 151.5 161.5 171.5 181.5 191.5 201.5
 91
 101
 111
 121
 131
 141
 151
 161
 171

 1
 1
 1
 1
 2
 2
 2
 2
 2
 6 4 4 4 4 6 6 6

with surrounding objects.

Dimensional Drawings

② Applicable Controllers $RCP3\ series\ actuators\ can\ be\ operated\ with\ the\ controllers\ indicated\ below.\ Select\ the\ type\ according\ to\ your\ intended\ application.$

Ex50

(*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

Name	External view	Model number		Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Referen page
Colon of dVolume Toma	100	PMEC-C-20PI-①-2-⑪	Easy-to-use controller, even for beginners		AC100V AC200V	Refer to P541	_	→ P53
Solenoid Valve Type	8	PSEP-C-20PI-①-2-0	Simple controller operable with the same signal as a solenoid valve	3 points		Refer to P555	_	→ P54
Solenoid valve multi-axis type PIO specification	Total Coll	MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected			Refer to P572		. DE
Solenoid valve multi-axis type Network specification	1111	MSEP-C	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points			_	→ P56
Positioner type High-output specification	áil .	PCON-CA-20PI-①-2-0	Equipped with a high-output driver Positioner type based on PIO control	512 points			_	
Pulse-train type High-output specification	on	PCON-CA-20PI-PL□-2-0	Equipped with a high-output driver Pulse-train input type	(—)	DC24V	Refer to P618	_	→ P6
Field network type High-output specification	100	PCON-CA-20PI	Equipped with a high-output driver Supporting 7 major field networks	768 points	DC24V		_	
Pulse Train Input Type (Differential Line Driver)	C	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	(—)		Refer to P628	_	→ P623
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated Serial Communication	64 points			_	
Program Control Type		PSEL-CS-1-20PI-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points		Refer to P671	_	→ P66

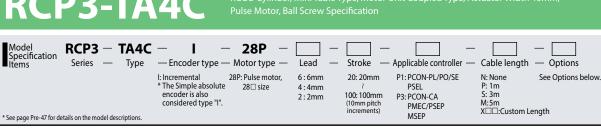
IAI

псрз-тазс 304

sales@electromate.com



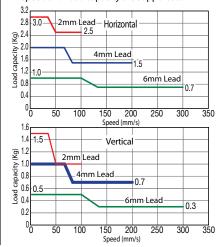
Table Arm Flat Typ





■ Speed vs. Load Capacity

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



(1) The 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.

Actuator Specifications									
■ Leads and Payloads (Note	1) Please note	that the	maximum l	oad capacity o	decreases as th	ne speed increases.	■ St	roke and	Maximum Speed
Model number	Feed Screw	Lead (mm)	Max. Load Ca Horizontal (kg)	apacity (Note 1) Vertical (kg)	Rated thrust (N)	Stroke (mm)	Lea	Stroke	20~100 (mm)
RCP3-TA4C-I-28P-6-①-②-③-④		6	~1	~0.5	25		ě	6	300
RCP3-TA4C-I-28P-4-①-②-③-④	Ball screw	4	~2	~1	37	20~100 (every 10mm)	Ball screw	4	200
RCP3-TA4C-I-28P-2-①-②-③-④		2	~3	~1.5	75		8	2	100
Code explanation (1) Stroke (2) Applicable Controller (3) Cable length (4) Options *See page A-71 for details on push motion.									

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

4 Options			
Name	Option code	See page	Standard price
Brake	В	→ 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	_

③Cable Length		
Туре	Cable symbol	Standard price
Standard	P (1m)	_
(Robot Cables)	S (3m)	_
(nonot capies)	M (5m)	_
	X06 (6m) ~ X10 (10m)	_
Special length	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.

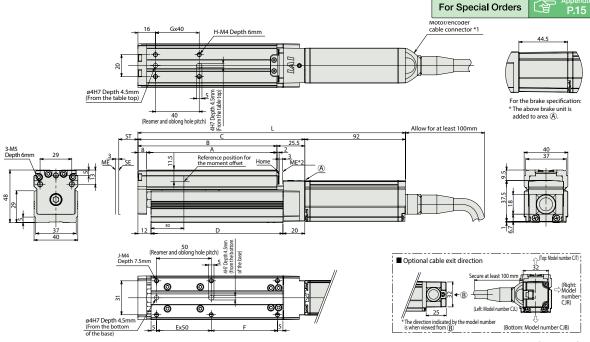
Actuator	Specifica	tions

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



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.

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
	Α	89	99	109	119	129	139	149	159	169
	В	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
	Н	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

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		
Colon old Value Ton o		PMEC-C-28PI-①-2-⑪	Easy-to-use controller, even for beginners		AC100V AC200V	Refer to P541	_	→ P53		
Solenoid Valve Type	1	PSEP-C-28PI-①-2-0	Simple controller operable with the same signal as a solenoid valve	3 points		Refer to P555	_	→ P54		
Solenoid valve multi-axis type PIO specification	lane i	MSEP-C-(1)-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected			Refer to		→ P56		
Solenoid valve multi-axis type Network specification		MSEP-C-((1)-~-((1)-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points		P572	_	→ P56		
Positioner type High-output specification	ál.	PCON-CA-28PI-①-2-0	Equipped with a high-output driver Positioner type based on PIO control	512 points			_			
Pulse-train type High-output specification				PCON-CA-28PI-PL□-2-0	Equipped with a high-output driver Pulse-train input type	(—)	DC24V	Refer to P618	_	→ P60
Field network type High-output specification		PCON-CA-28PI-W-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points	DC24V		_			
Pulse Train Input Type (Differential Line Driver)	Ü	PCON-PL-28PI-①-2-0	Pulse train input type with differential line driver support	(—)			_			
Pulse Train Input Type (Open Collector)		PCON-PO-28PI-①-2-0	Pulse train input type with open collector support	()		Refer to P628	ı	→ P62		
Serial Communication Type		PCON-SE-28PI-N-0-0	Dedicated Serial Communication	64 points			_			
Program Control Type		PSEL-CS-1-28PI-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points		Refer to P671	_	→ P66		

*This is for the single-axis PSEL.

* ① indicates I/O type (NP/PN).

* ① indicates power supply voltage (1: 100V / 2: 100~240V).

* ② indicates number of axes (1 to 8).

* ② indicates field network specification symbol.

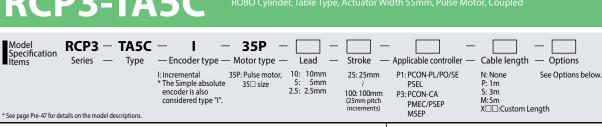
IAI

RCP3-TA4C 306

Table/ Arm/ Flat Type

sales@electromate.com







Technical References



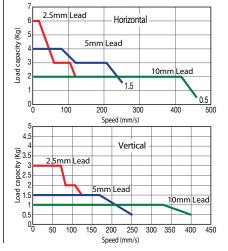
OIN

 $[C \in]$

- (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 (Note	I) Please note	that the maxi	mum load cap	acity decreas	es as the speed increases.	■ Stroke and	Maximum Speed (Unit	it: mm/s
Model number	Lead (mm)	Max. Load Cap Horizontal (kg)	vertical (kg)	Rated thrust (N)	Stroke (mm)	Stroke Lead	25~100 (every 25mm)	
RCP3-TA5C-I-35P-10-①-②-③-④	10	~2	~1	34		10	465<400>	
RCP3-TA5C-I-35P-5-①-②-③-④	5	~4	~1.5	68	25~100 (every 25mm)	5	250	
RCP3-TA5C-I-35P-2.5-①-②-③-④	2.5	~ 6	~3	136		2.5	125	
Code explanation ① Stroke ② Applicable	Controller	③ Cable	length 🗿	Options	*See page A-71 for details on	push motion. * The	values enclosed in < > apply to vertical	l settings

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

④ Options			
Name	Option code	See page	Standard price
Brake	В	→ 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	_

Cable symbol	Standard price
P (1m)	_
S (3m)	_
M (5m)	_
X06 (6m) ~ X10 (10m)	_
X11 (11m) ~ X15 (15m)	_
X16 (16m) ~ X20 (20m)	_
	P (1m) S (3m) M (5m) X06 (6m) ~ X10 (10m) X11 (11m) ~ X15 (15m)

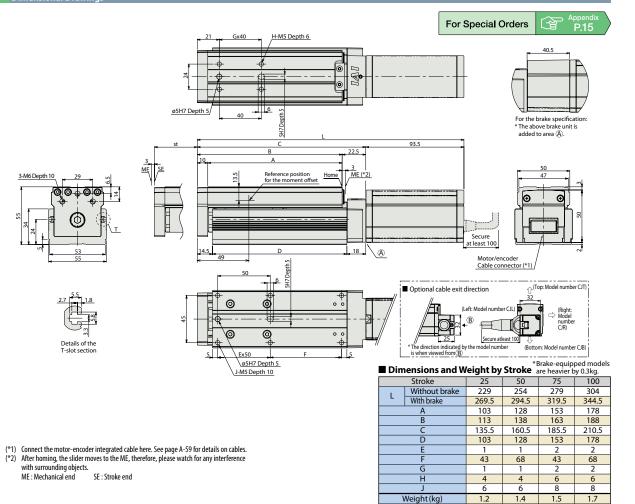
^{*}The standard cable is the motor-encoder integrated robot cable.
* See page A-59 for cables for maintenance.

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







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

External view	Model number		Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page			
***	PMEC-C-35PI-①-2-⑪	Easy-to-use controller, even for beginners		AC100V AC200V	Refer to P541	_	→ P537			
1	PSEP-C-35PI-①-2-0	Simple controller operable with the same signal as a solenoid valve	3 points		Refer to P555	_	→ P547			
	MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected			Refer to		, DEC.			
iiii	MSEP-C-((1)-~-((V)-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points		P572	_	→ P563			
4	PCON-CA-35PI-①-2-0	Equipped with a high-output driver Positioner type based on PIO control	512 points			_				
Ą	Ą	Ą		PCON-CA-35PI-PL□-2-0	Equipped with a high-output driver Pulse-train input type	(—)	DC24V	Refer to P618	_	→ P60
	PCON-CA-35PI-®-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points	DC24V		_				
e l	PCON-PL-35PI-①-2-0	Pulse train input type with differential line driver support	()		Refer to P628	_				
	PCON-PO-35PI-①-2-0	Pulse train input type with open collector support	(—)			_	→ P623			
	PCON-SE-35PI-N-0-0	Dedicated Serial Communication	64 points			_				
	PSEL-CS-1-35PI-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points		Refer to P671	_	→ P66			
	view	PMEC-C-35PI-①-2-① PSEP-C-35PI-①-2-0 MSEP-C-⑩①-2-0 MSEP-C-⑪②-0-0 PCON-CA-35PI-①-2-0 PCON-CA-35PI-①-2-0 PCON-PC-35PI-①-2-0 PCON-PC-35PI-①-2-0 PCON-PC-35PI-①-2-0 PCON-PC-35PI-①-2-0	PMEC-C-35PI-①-2-① Easy-to-use controller, even for beginners Simple controller operable with the same signal as a solenoid valve MSEP-C-⑩①-2-0 Positioner type based on PIO control, allowing up to 8 axes to be connected MSEP-C-⑩②-0-0 Field network-ready positioner type, allowing up to 8 axes to be connected PCON-CA-35PI-①-2-0 Equipped with a high-output driver Positioner type based on PIO control Equipped with a high-output driver Positioner type based on PIO control PCON-CA-35PI-②-0-0 Equipped with a high-output driver Pulse-train input type PCON-PL-35PI-①-2-0 Pulse train input type with differential line driver support PCON-PO-35PI-①-2-0 Pulse train input type with open collector support PCON-SE-35PI-N-0-0 Dedicated Serial Communication PFEL-CS-1-35PI-①-2-0 Programmed operation is possible.	PMEC-C-35PI-①-2-① Easy-to-use controller, even for beginners PSEP-C-35PI-①-2-① Simple controller operable with the same signal as a solenoid valve	PMEC-C-35PI-①-2-① Easy-to-use controller, even for beginners Simple controller operable with the same signal as a solenoid valve MSEP-C-①	PMEC-C-35PI-①-2-① Easy-to-use controller, even for beginners PSEP-C-35PI-①-2-① Simple controller operable with the same signal as a solenoid valve MSEP-C-⑩①-2-0 Positioner type based on PIO control, allowing up to 8 axes to be connected MSEP-C-⑩①-0-0 Field network-ready positioner type, allowing up to 8 axes to be connected PCON-CA-35PI-①-2-0 Equipped with a high-output driver Positioner type based on PIO control PCON-CA-35PI-①-2-0 Equipped with a high-output driver Positioner type based on PIO control PCON-CA-35PI-①-2-0 Equipped with a high-output driver Supporting 7 major field networks PCON-PL-35PI-①-2-0 Pulse train input type with differential line driver support PCON-PO-35PI-①-2-0 Pulse train input type with open collector support PCON-PSE-35PI-①-2-0 Pulse train input type with open collector support PCON-SE-35PI-N-0-0 Dedicated Serial Communication PSEI_CS-1_35PI-①-2-0 Programmed operation is possible. 1 500 points Refer to P512 Refer to P628 Refer to P628	PMEC-C-35PI-①-2-① Easy-to-use controller, even for beginners PSEP-C-35PI-①-2-① Simple controller operable with the same signal as a solenoid valve MSEP-C-⑩①-2-0 Positioner type based on PIO control, allowing up to 8 axes to be connected MSEP-C-⑩②-0 Field network-ready positioner type, allowing up to 8 axes to be connected PCON-CA-35PI-①-2-0 Equipped with a high-output driver Positioner type based on PIO control Equipped with a high-output driver Positioner type based on PIO control PCON-CA-35PI-①-2-0 Equipped with a high-output driver Pulse-train input type PCON-CA-35PI-①-2-0 Equipped with a high-output driver Supporting 7 major field networks PCON-PL-35PI-①-2-0 Pulse train input type with open collector support PCON-SE-35PI-①-2-0 Pulse train input type with open collector support PCON-SE-35PI-①-2-0 Programmed operation is possible. 1500 points Refer to P572 AC100V Refer to P555 — Refer to P572 — C-) Refer to P618 — PCON-PL-35PI-①-2-0 Pulse train input type with open collector support PCON-SE-35PI-①-2-0 Pulse train input type with open collector support PCON-SE-35PI-①-2-0 Programmed operation is possible.			

IAI

RCP3-TA5C 308

Slider Type

Mini

=

Controllers

Rod Type

Mini

Standard

Controllers Integrated

able/ Arm/ Flat Type

Mini

Standard

Gripper/ Rotary Type

Linear Servo Type

Cleanroom Type

Splash-Proof Type

> ulse Iotor

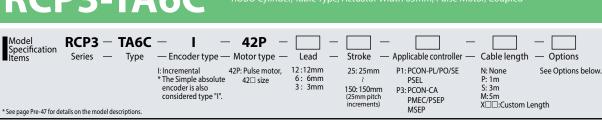
Servo Motor (24V)

> ervo lotor 00V)

Linear Servo Motor

sales@electromate.com







Technical References

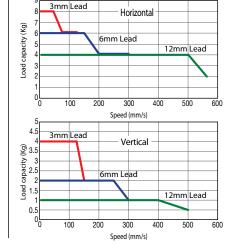
- (1) Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- (2) Please note that the maximum speed is different when used horizontally versus vertically.

 (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 maxi	mum load cap	acity decreas	es as the speed increases.	■ Stroke and	Maximum Speed	(Unit: mm/s)	
Model number	Lead (mm)	Max. Load Cap Horizontal (kg)	vertical (kg)	Rated thrust (N)	Stroke (mm)	Stroke Lead	25~100 (every 25mm)		
RCP3-TA6C-I-42P-12-①-②-③-④	12	~4	~1	60		12	560<500>		
RCP3-TA6C-I-42P-6-①-②-③-④	6	~ 6	~2	110	25~150 (every 25mm)	6	300		
RCP3-TA6C-I-42P-3-①-②-③-④	3	~8	~4	189		3	150		
Code explanation ① Stroke ② Applicab	Code explanation								

① Stroke	
①Stroke (mm)	Standard price
25	_
50	_
75	_
100	_
125	_
150	<u>_</u>

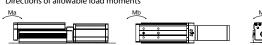
④ Options			
Name	Option code	See page	Standard price
Brake	В	→ A-42	_
Cable exit direction (top)	CJT	→ A-42	_
Cable exit direction (right)	CJR	→ A-42	_
Cable exit direction (left)	CJL	→ A-42	_
Cable exit direction (bottom)	CJB	→ A-42	_
Non-motor end specification	NM	→ A-52	_

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

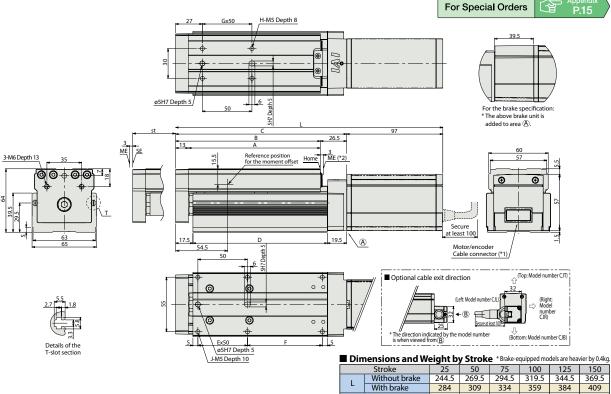
^{*}The standard cable is the motor-encoder integrated robot cable.
*See page A-59 for cables for maintenance.

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







(*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

	Stroke	25	50	/5	100	125	150
	Without brake	244.5	269.5	294.5	319.5	344.5	369.5
L L	With brake	284	309	334	359	384	409
	A	108	133	158	183	208	233
	В		146	171	196	221	246
	С		172.5	197.5	222.5	247.5	272.5
	D		135.5	160.5	185.5	210.5	235.5
	E		1	2	2	3	3
	F		75.5	50.5	75.5	50.5	75.5
	G		1	2	2	3	3
	Н		4	6	6	8	8
	J		6	8	8	10	10
	Weight (kg)	1.8	2	2.2	2.4	2.6	2.8

② Applicable Controllers

Dimensional Drawings

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

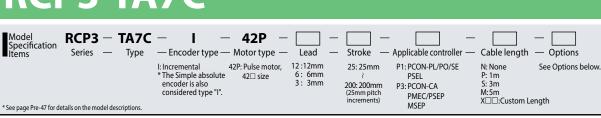
Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Referen page
Colon of dVolume Tour	#101 F	PMEC-C-42PI-①-2-⑪	Easy-to-use controller, even for beginners		AC100V AC200V	Refer to P541	_	→ P53
Solenoid Valve Type	1	PSEP-C-42PI-①-2-0	Simple controller operable with the same signal as a solenoid valve	3 points		Refer to P555	_	→ P54
Solenoid valve multi-axis type PIO specification		MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected			Refer to		, DE/
olenoid valve multi-axis type Network specification	1111	MSEP-C-III-~-IV-0-0 Field network-ready allowing up to 8 axe	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points		P572	_	→ P563
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			_	
Pulse-train type High-output specification		PCON-CA-42PI-PL□-2-0	Equipped with a high-output driver Pulse-train input type	(—)	DC24V	Refer to P618	_	→ P6
Field network type High-output specification		PCON-CA-42PI-ŵ-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points	DCZ4V		_	
Pulse Train Input Type (Differential Line Driver)	•	PCON-PL-42PI-(Î)-2-0	Pulse train input type with differential line driver support	(—)			_	
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-①-2-0	Pulse train input type with open collector support	()		Refer to P628		→ P62
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated Serial Communication	64 points			_	
Program Control Type		PSEL-CS-1-42PI-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points		Refer to P671	_	→ P66

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

IAI

псрз-табс 310









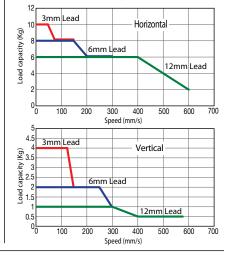
Technical References

Notes o

- (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. ■ Stroke and Maximum Speed (Unit:							
Model number Lead (mm) Max. Load Capacity (Note 1) Horizontal (kg) Rated Vertical (kg) Stroke thrust (N) Knum					Stroke Lead	25~100 (every 25mm)	
RCP3-TA7C-I-42P-12-①-②-③-④	12	~6	~1	60		12	600<580>
RCP3-TA7C-I-42P-6-①-②-③-④	6	~8	~2	110	25~200 (every 25mm)	6	300
RCP3-TA7C-I-42P-3-①-②-③-④	3	~10	~4	189		3	150
Code explanation ① Stroke ② Applicab	le Controll	er ③Cab	le length	Options	5 *See page A-71 for details	on push motion. *The	values enclosed in < > apply to vertical settings.

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

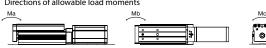
4 Options			
Name	Option code	See page	Standard price
Brake	В	→ A-42	_
Cable exit direction (top)	CJT	→ A-42	_
Cable exit direction (right)	CJR	→ A-42	_
Cable exit direction (left)	CJL	→ A-42	_
Cable exit direction (bottom)	CJB	→ A-42	_
Non-motor end specification	NM	→ A-52	I

Cable symbol	Standard price
P (1m)	_
S (3m)	_
M (5m)	_
X06 (6m) ~ X10 (10m)	_
X11 (11m) ~ X15 (15m)	_
X16 (16m) ~ X20 (20m)	_
	P (1m) S (3m) M (5m) X06 (6m) ~ X10 (10m) X11 (11m) ~ X15 (15m)

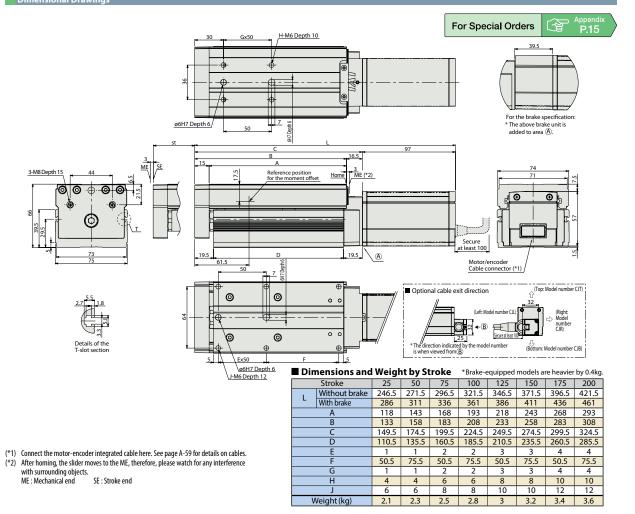
^{*} See page A-59 for cables for maintenance.

Actuator Specifications	
ltem	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







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	Referen page
Solenoid Valve Type	#EUR	PMEC-C-42PI-①-2-⑪	Easy-to-use controller, even for beginners		AC100V AC200V	Refer to P541	_	→ P53
Solenoid valve Type	lune.	PSEP-C-42PI-①-2-0	Simple controller operable with the same signal as a solenoid valve	3 points	oints	Refer to P555	_	→ P54
Solenoid valve multi-axis type PIO specification		MSEP-C-(1)-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected			Refer to		→ P56
Solenoid valve multi-axis type Network specification		MSEP-C-(11)-~-(1V)-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points		P572		→ P30
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			_	
Pulse-train type High-output specification	1	PCON-CA-42PI-PL□-2-0	Equipped with a high-output driver Pulse-train input type	(—)	DC24V	Refer to P618	_	→ P60
Field network type High-output specification		PCON-CA-42PI-®-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points	DC24V		_	
Pulse Train Input Type (Differential Line Driver)		PCON-PL-42PI-①-2-0	Pulse train input type with differential line driver support	()		_		
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-①-2-0	Pulse train input type with open collector support	(—)		Refer to P628	_	→ P62
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated Serial Communication	64 points			_	
Program Control Type		PSEL-CS-1-42PI-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points		Refer to P671	_	→ P66

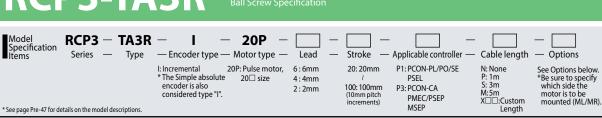
псрз-татс 312





Table Arm Flat Typ

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





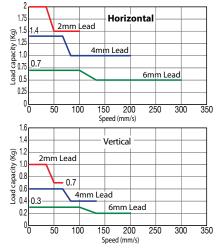
Technical References



- (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. ■ Stroke and Maximum Speed (Unit: mm									(Unit: mm/s)		
Model number	Feed Screw	Lead (mm) Horizontal (kg) Vertical (kg) Rated (mm) Positioning repeatability (mm) Stroke repeatability (mm)		Lea	Stroke	20~100 (mm)					
RCP3-TA3R-I-20P-6-①-②-③-④		6	~0.7	~0.3	15	(mm)	(,	>	6	300<200>	
RCP3-TA3R-I-20P-4-①-②-③-④	Ball screw	4	~1.4	~0.6	22	±0.02	20~100 (every 10mm)	III screw	4	200<133>	
RCP3-TA3R-I-20P-2-①-②-③-④	1	2	~2	~1	45			Ball	2	100<67>	
Code explanation											

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

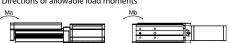
④ Options			
Name	Option code	See page	Standard price
Brake	В	→ A-42	_
Side-mounted motor to the left (standard)	ML	→ A-52	_
Side-mounted motor to the right	MR	→ A-52	_
Non-motor end specification	NM	→ A-52	_

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

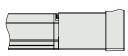
^{*} The standard cable for the RCP3 is the robot cable. * See page A-59 for cables for maintenance.

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

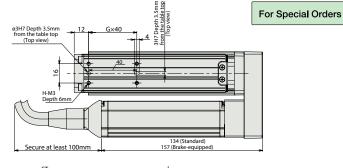


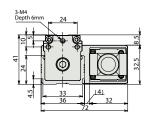
* The drawing below shows the specification with motor side-mounted to the left.

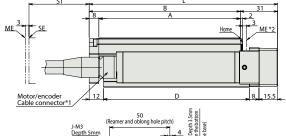


Dimensional Drawings

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





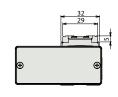


0

0

0

0



ST: Stroke ME: Mechanical end SE: Stroke end

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

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

o

രൂര

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
Α	87.5	97.5	107.5	117.5	127.5	137.5	147.5	157.5	167.5
В	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	18.5	28.5	38.5	48.5	58.5
G	1	1	1	1	2	2	2	2	2
Н	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

(*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.

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			
Calamaid Valua Tura			Easy-to-use controller, even for beginners		AC100V AC200V	Refer to P541	_	→ P537			
Solenoid Valve Type	1	PSEP-C-20PI-①-2-0	Simple controller operable with the same signal as a solenoid valve	3 points		Refer to P555	_	→ P54			
Solenoid valve multi-axis type PIO specification		MSEP-C-(1)-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected			Refer to P572		→ P563			
Solenoid valve multi-axis type Network specification		MSEP-C-((1)-~-((1)-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points			_				
Positioner type High-output specification				ń.	PCON-CA-20PI-①-2-0	Equipped with a high-output driver Positioner type based on PIO control	512 points			_	
Pulse-train type High-output specification				PCON-CA-20PI-PL□-2-0	Equipped with a high-output driver Pulse-train input type	(—)	DC24V	Refer to P618	_	→ P60	
Field network type High-output specification	100	PCON-CA-20PI-®-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points	DC24V		_				
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	(—)		Refer to P628	_	→ P62			
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated Serial Communication	64 points			_				
Program Control Type		PSEL-CS-1-20PI-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points		Refer to P671	_	→ P66			

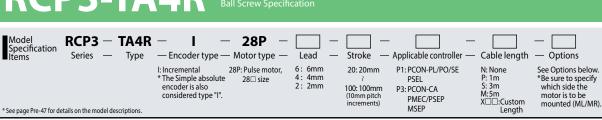
*This is for the single-axis PSEL. *① indicates I/O type (NP/PN). *① indicates power supply voltage (1: 100V / 2: 100~240V).
*⑩ indicates number of axes (1 to 8). *⑩ indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.

IAI

RCP3-TA3R 314



Table Arm Flat Typ





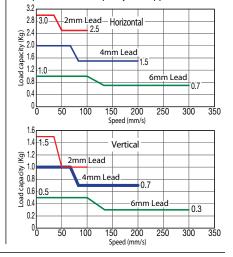
Technical References

motor side-mounted to the left (ML).

(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.



(Unit: mm/s)

Actuator Specifications										
Leads and Payloads (Note 1) Please note that the maximum load capacity decreases as the speed increases. Stroke and Maximum Speed										
Model number	Feed Screw	Lead (mm)	Max. Load C Horizontal (kg)	apacity (Note 1) Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)	Lea	Stroke	20~100 (mm)
RCP3-TA4R-I-28P-6-①-②-③-④		6	~1	~0.5	25			ew	6	300
RCP3-TA4R-I-28P-4-①-②-③-④	Ball screw	4	~2	~1	37	±0.02	20~100 (every 10mm)	all scre	4	200
RCP3-TA4R-I-28P-2-①-②-③-④		2	~3	~1.5	75			l iii	2	100
Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options *See page A-71 for details on push motion.										

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

4 Options			
Name	Option code	See page	Standard price
Brake	В	→ 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	_

③Cable Length Cable symbol Standard price Туре **P** (1m) Standard **S** (3m) (Robot Cables) M (5m) **X06** (6m) ~ **X**10 (10m) Special length 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.

	Specifications

ltem	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

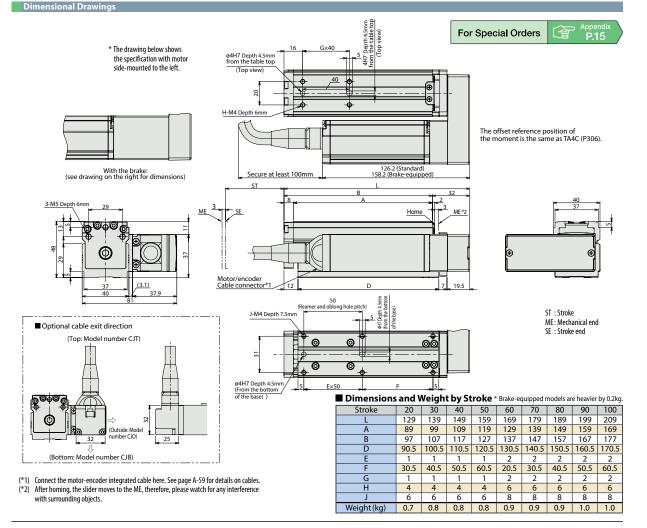
Directions of allowable load moments



315 RCP3-TA4R

90 100

ROBO Cylinder



②Applicable Controller	5
------------------------	---

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

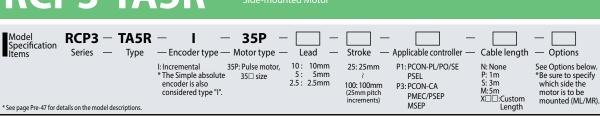
Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Colon of dVolume Toma	*****	PMEC-C-28PI-①-2-⑪	Easy-to-use controller, even for beginners		AC100V AC200V	Refer to P541	_	→ P53
Solenoid Valve Type	8	PSEP-C-28PI-①-2-0	Simple controller operable with the same signal as a solenoid valve	3 points		Refer to P555	_	→ P54
Solenoid valve multi-axis type PIO specification	Total Control	MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected			Refer to		→ P56
Solenoid valve multi-axis type Network specification	###	MSEP-C-(11)-~-(1V)-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points		P572	_	→ P30
Positioner type High-output specification	e i	PCON-CA-28PI-①-2-0	Equipped with a high-output driver Positioner type based on PIO control	512 points			_	
Pulse-train type High-output specification	1	PCON-CA-28PI-PL□-2-0	Equipped with a high-output driver Pulse-train input type	(—)	DC24V	Refer to P618	_	→ P60
Field network type High-output specification	100	PCON-CA-28PI-®-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points	DC24V		_	
Pulse Train Input Type (Differential Line Driver)		PCON-PL-28PI-①-2-0	Pulse train input type with differential line driver support	(—)			_	
Pulse Train Input Type (Open Collector)	-	PCON-PO-28PI-①-2-0	Pulse train input type with open collector support	()		Refer to P628		→ P62
Serial Communication Type		PCON-SE-28PI-N-0-0	Dedicated Serial Communication	64 points			_	
Program Control Type		PSEL-CS-1-28PI-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points		Refer to P671	_	→ P66

IAI

RCP3-TA4R 316

sales@electromate.com

Rod Type Mini Standard Controllers Integrated



[C €] RoHS



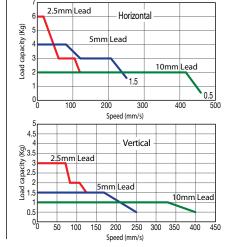
Technical References



- (1) Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- (2) 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 Horizontal (kg)	Capacity Vertical (kg)	Rated thrust (N)	Stroke (mm)
RCP3-TA5R-I-35P-10-①-②-③-④	10	~2	~1	34	
RCP3-TA5R-I-35P-5-①-②-③-④	5	~4	~1.5	68	25~200 (every 25mm)
RCP3-TA5R-I-35P-2.5-①-②-③-④	2.5	~ 6	~3	136	

■ Stroke and Maximum Speed (Unit: mm/s) Stroke 25~100 (every 25mm) Lead 465<400> 10

5 250 2.5 125

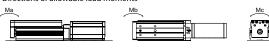
Standard price
_
_
_
_

4 Options			
Name	Option code	See page	Standard price
Brake	В	→ 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	1

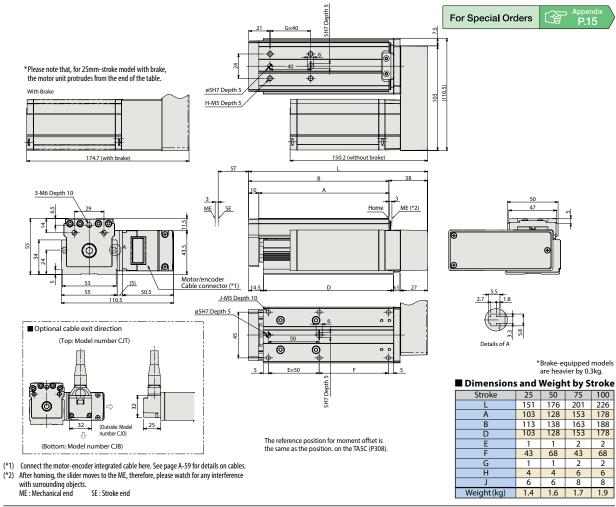
③Cable Length		
Туре	Cable symbol	Standard price
Standard	P (1m)	_
(Robot Cables)	S (3m)	_
(Nobol Cables)	M (5m)	_
	X06 (6m) ~ X10 (10m)	_
Special length	X11 (11m) ~ X15 (15m)	_
	X16 (16m) ~ X20 (20m)	_

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

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)







Dimensional Drawings

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

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Colon of dVolume Toma		PMEC-C-35PI-①-2-⑪	Easy-to-use controller, even for beginners		AC100V AC200V	Refer to P541	_	→ P53
Solenoid Valve Type	1	PSEP-C-35PI-①-2-0	Simple controller operable with the same signal as a solenoid valve	3 points		Refer to P555	_	→ P54
Solenoid valve multi-axis type PIO specification		MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected			Refer to		. DEC
Solenoid valve multi-axis type Network specification		MSEP-C-(11)-~-(1V)-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points		P572	_	→ P56
Positioner type High-output specification	á	PCON-CA-35PI-①-2-0	Equipped with a high-output driver Positioner type based on PIO control	512 points			_	
Pulse-train type High-output specification		PCON-CA-35PI-PL□-2-0	Equipped with a high-output driver Pulse-train input type	(—)	DC24V	Refer to P618	_	→ P60
Field network type High-output specification	B)	PCON-CA-35PI-®-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points	DC24V		_	
Pulse Train Input Type (Differential Line Driver)	C.	PCON-PL-35PI-①-2-0	Pulse train input type with differential line driver support	(—)			_	
Pulse Train Input Type (Open Collector)		PCON-PO-35PI-①-2-0	Pulse train input type with open collector support	(—)		Refer to P628	_	→ P62
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		Refer to P671	_	→ P66

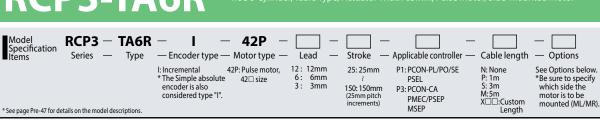
IAI

RCP3-TA5R 318



sales@electromate.com









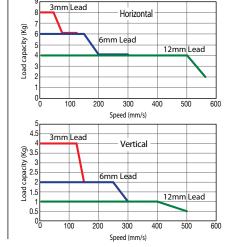
Technical References



- (1) Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds.
- Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported. (2) 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 Specification:

■ Leads and Payloads

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

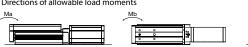
①Stroke	
①Stroke (mm)	Standard price
25	_
50	_
75	_
100	-
125	_
150	_

④ Options			
Name	Option code	See page	Standard price
Brake	В	→ 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	1

Cable symbol	Standard price
P (1m)	_
S (3m)	_
M (5m)	_
X06 (6m) ~ X10 (10m)	_
X11 (11m) ~ X15 (15m)	_
X16 (16m) ~ X20 (20m)	_
	P (1m) S (3m) M (5m) X06 (6m) ~ X10 (10m) X11 (11m) ~ X15 (15m)

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

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)			





	S that Good a control of the control		For Sp	oecial Order	s 🕃	Appe P.	
*Please note that, for 25mm-stroke model with brake, the motor unit protrudes from the end of the table. With Brake	95H7 Depth S		7 7 7 7 7 7 7 7 133.5)				
164.2 (with brake)	H-MS Depth 8	brake)					
S S S S S S S S S S S S S S S S S S S	B A	40.5 Home 3. ME (*2)	(a)	55	57	0	5
65 58.5 Cooke C	© © 50 © F×50 F	o o o o o o o o o o o o o o o o o o o	and Wo	Details of A	*Brake	-equippec	i models
32 (Outside: Model number CIO)	J-M5 Depth 10 e5H7 Depth 5	Stroke L A B D	25 161.5 108 121 110.5	50 75 186.5 211.5 133 158 146 171 135.5 160.5	100 236.5 183 196 185.5	125 261.5 208 221 210.5	150 286.5 233 246 235.5
(Bottom: Model number CJB)) Connect the motor-encoder integrated cable here. See page A-59 for details) After homing, the slider moves to the ME, therefore, please watch for any int with surrounding objects. ME: Mechanical end SE: Stroke end	the same as the position. on the TA6C (P310). on cables.	E F G H J Weight (kg)	1 50.5 1 4 6 2.1	1 2 75.5 50.5 1 2 4 6 6 8 2.3 2.5	2 75.5 2 6 8 2.7	3 50.5 3 8 10 2.9	3 75.5 3 8 10 3.1

with surrounding objects.			
ME : Mechanical end	SE : Stroke end		

(*1) (*2)

Dimensional Drawings

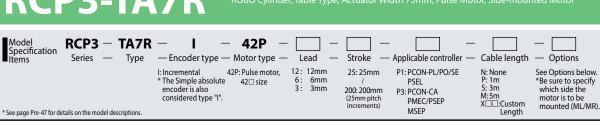
② Applicable Controllers
RCP3 series actuators can be oper

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Referen page
Colon of AVALor Tons	***	PMEC-C-42PI-①-2-⑪	Easy-to-use controller, even for beginners		AC100V AC200V	Refer to P541	_	→ P53
Solenoid Valve Type	1	PSEP-C-42PI-①-2-0	Simple controller operable with the same signal as a solenoid valve	3 points		Refer to P555	_	→ P54
Solenoid valve multi-axis type PIO specification	Total Control	MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected			Refer to		, DE
Solenoid valve multi-axis type Network specification		MSEP-C	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points		P572	_	→ P563
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			_	
Pulse-train type High-output specification		PCON-CA-42PI-PL□-2-0	Equipped with a high-output driver Pulse-train input type	(—)	DC24V	Refer to P618	_	→ P6
Field network type High-output specification		PCON-CA-42PI-®-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points	DC24V		_	
Pulse Train Input Type (Differential Line Driver)	•	PCON-PL-42PI-①-2-0	Pulse train input type with differential line driver support	()	(—)		_	
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-①-2-0	Pulse train input type with open collector support	- ()		Refer to P628	_	→ P6
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated Serial Communication	64 points			_	
Program Control Type		PSEL-CS-1-42PI-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points		Refer to P671	_	→ P6

IAI

RCP3-TA6R 320







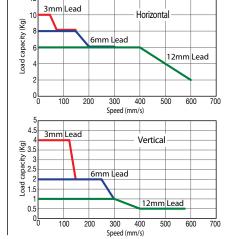
Technical References



- (1) Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- (2) 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 Horizontal (kg)	Capacity Vertical (kg)	Rated thrust (N)	Stroke (mm)
RCP3-TA7R-I-42P-12-①-②-③-④	12	~6	~1	60	
RCP3-TA7R-I-42P-6-①-②-③-④	6	~8	~2	110	25~200 (every 25mm)
RCP3-TA7R-I-42P-3-①-②-③-④	3	~10	~4	189	

■ Stroke and Maximum Speed (Unit: mm/s) Stroke 25~200 (every 25mm) Lead 12 600<580>

300 6 150

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

⊕ 5ti oite	
①Stroke (mm)	Standard price
25	_
50	_
75	_
100	_
125	_
150	_
175	_
200	_

4 Options			
Name	Option code	See page	Standard price
Brake	В	→ 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	_

③Cable Length				
Type	Cable symbol	Standard price		
Standard	P (1m)	_		
(Robot Cables)	S (3m)	_		
(NODOL Cables)	M (5m)	_		
	X06 (6m) ~ X10 (10m)	_		
Special length	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.

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)			





Standard

Integrated

Standard

Controllers

Table/ Arm/ Tat Type

Mini

Standard

Gripper/ Rotary Type

Linear Servo Type

Cleanroom Type

> Splash-Proof Type

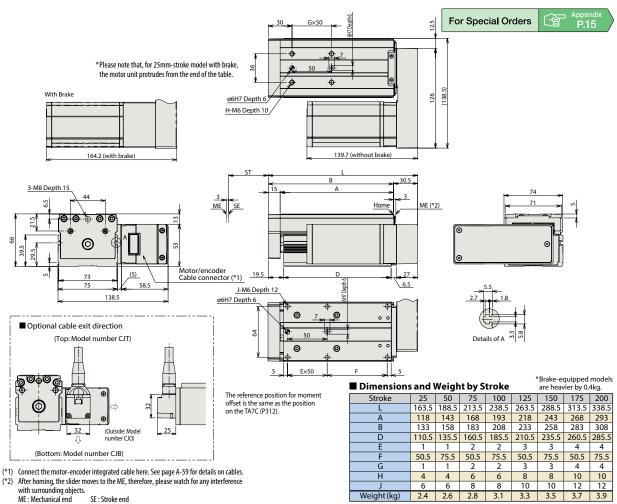
Pulse Motor

Servo Motor 24V)

ervo lotor !00V)

Linear Servo

RCP3-TA7R **322**



② Applicable Controllers	

Dimensional Drawings

Name	External	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Calan sidValua Tana	*	PMEC-C-42PI-①-2-⑪	Easy-to-use controller, even for beginners	positioning points	AC100V AC200V	Refer to P541	_	→ P537
Solenoid Valve Type	1	PSEP-C-42PI-①-2-0	Simple controller operable with the same signal as a solenoid valve	3 points		Refer to P555	_	→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected			Refer to		. DEC2
Solenoid valve multi-axis type Network specification		MSEP-C-(11)-~-(10)-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points		P572	_	→ P563
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			_	
Pulse-train type High-output specification		PCON-CA-42PI-PL□-2-0	Equipped with a high-output driver Pulse-train input type	(—)	DC24V	Refer to P618	_	→ P607
Field network type High-output specification		PCON-CA-42PI-®-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points	DC24V		_	
Pulse Train Input Type (Differential Line Driver)	Ó	PCON-PL-42PI-①-2-0	Pulse train input type with differential line driver support	()			_	
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-①-2-0	Pulse train input type with open collector support	(—)		Refer to P628	_	→ P623
Serial Communication Type	Ĩ	PCON-SE-42PI-N-0-0	Dedicated Serial Communication	64 points			_	
Program Control Type		PSEL-CS-1-42PI-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points		Refer to P671	_	→ P665
*This is for the single-axis PS * (11) indicates number of axe		indicates I/O type (NP/PN indicates field network sp	* (i) indicates power sup becification symbol. * □ indicates N (NPN sp					

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

IAI

sales@electromate.com

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

[C | RoHS

RCA2-TCA3NA

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

RCA2 -TCA3NA-10 Specification Items Type Series — - Encoder type - Motor type -Lead Stroke 10:10W Servo 4: Ball screw 4mm 30:30mm I. Incremental

The Simple absolute encoder is also considered type "I".

Ball screw 2mm 50: 50mm Ball screw 1mm 4S: Lead screw 4mm 2S: Lead screw 2mm

1S: Lead screw 1mm

 Applicable controller Cable length — Options A1:ACON N: None ASEL P: 1m A3:AMEC S: 3m

See options below.

ASEP M:5m MSEP X□□:Custom Length

Power-saving



Technical References



- 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.

■ Stroke and Maximum Speed

Actuator Specifications

■ Leads and Payloads Stroke Motor Feed screw Lead Max. Load Capacity Rated Model number output (W) (mm) thrust (N) Horizontal (kg) | Vertical (kg) RCA2-TCA3NA-I-10-4-10-2-3-4 4 0.75 0.25 427 Ball 30 RCA2-TCA3NA-I-10-2-①-②-③-④ 10 2 85.5 ±0.02 1.5 0.5 50 RCA2-TCA3NA-I-10-1-10-1-2-3-4 1 3 1 170 9 RCA2-TCA3NA-I-10-4S-①-②-③-④ 4 0.25 0.125 25.1 Lead 30 RCA2-TCA3NA-I-10-2S-①-②-③-④ 2 0.5 10 0.25 50.3 ±0.05 50 RCA2-TCA3NA-I-10-1S-10-2-3-4 100.5 1 0.5

=		Lea	d	(mm)	(mm)			
		W	4	20	00			
	Ball screw				II scre	2	10	00
			1	5	0			
	Lead screw		4	20	00			
			2	10	00			
			1	5	0			

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

(Unit: mm/s)

UStroke			
Stroke	Standard price		
(mm)	Feed screw		
(11111)	Ball screw	Lead screw	
30	_	_	
50	_	_	

4 Options			
Name	Option code	See page	Standard price
Brake	В	→ A-42	_
Connector cable exits from the left	K1	→ A-51	_
Connector cable exits from the front	K2	→ A-51	_

КЗ

→ A-51

272	
3 23	RCA2-TCA3NA

Connector cable exits from the right

Power-saving specification

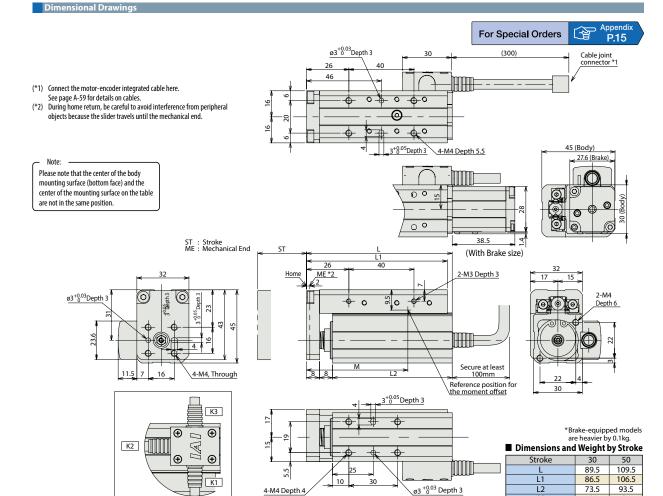
③ Cable Length						
Туре	Cable symbol	Standard price				
Standard	P (1m)	_				
(Robot Cables)	S (3m)	_				
(RODOL Cables)	M (5m)	_				
	X06 (6m) ~ X10 (10m)	_				
Special length	X11 (11m) ~ X15 (15m)	_				
	X16 (16m) ~ X20 (20m)	_				

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

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 dy	namic moment (Note)	Ma: 9.9 N·m, Mb: 9.9 N·m, Mc: 3.3 N·m		
Allowable sta	atic moment	Ma: 14.1 N·m, Mb: 14.1 N·m, Mc: 6.7 N·m		
Ambient ope	erating 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.



②Applicable Controllers

Cable exit direction options

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-10I①-①-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P537
Solehold valve Type	1	ASEP-C-10I①-①-2-0	Simple controller operable with the same signal as a solenoid valve	3 points			_	→ P547
Solenoid valve multi-axis type PIO specification	1	MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected					→ P563
olenoid valve multi-axis type Network specification		MSEP-C-()-~-(\vec{V}-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points			_	→ P303
Positioner type		ACON-C-10I①-①-2-0	Positioning is possible for up to 512	512 points		(Standard) 1.3A rated	_	
Safety-Compliant Positioner Type		ACON-CG-10I①	points	312 points	DC24V	4.4A max. (Power-saving)	_	
Pulse Train Input Type (Differential Line Driver)		ACON-PL-10I①-①-2-0	Pulse train input type with differential line driver support	()		1.3A rated 2.5A max.	_	→ P631
Pulse Train Input Type (Open Collector)	ė.	ACON-PO-10I①	Pulse train input type with open collector support	(—)	(—)		_	
Serial Communication Type		ACON-SE-10I①-N-0-0	Dedicated Serial Communication	64 points	64 points		_	
Program Control Type		ASEL-CS-1-10I①-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			_	→ P675

IAI

RCA2-TCA3NA **324**

М

Weight (kg)

64

0.37

0.44



Table Arm Flat Typ

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-20 Type — Encoder type — Motor type — Series — Lead — Stroke Applicable controller — Cable length — Options 20:20W Servo 6: Ball screw 6mm 30:30mm A1:ACON I: Incremental N: None See options below. Ball screw 4mm 50: 50mm Ball screw 2mm ASEL The Simple absolute motor P: 1m encoder is also A3:AMEC S: 3m 6S: Lead screw 6mm considered type "I". ASEP M:5m 4S: Lead screw 4mm 2S: Lead screw 2mm MSEP X□□: Custom Length * See page Pre-47 for details on the model descriptions.

[C €] RoHS





(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.

■ Stroke and Maximum Speed

Technical References

(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

①Stroke

Stroke

(mm)

30 50

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

	≥	"	270<220>	
)	l scre	4	20	00

Stroke

Lea	Lead (mm)		(mm)		
×	6	270<220>	300		
Ball screw	4 200		00		
Ba	2	100			
we we	6	220	300		
ead screw	4	200			
Leg	2				
* The v	alues enclosed i	n < > apply to vertical s	ettings. (Unit: mm/s)		

Code explanation ① Stroke ② Applicable controller ③ Cable length ④ Opt

Lead screw

Standard price

Feed screw

ions	*See page A-71 for details on push motion.	^ I	
------	--	-----	--

③Cable Length
Type
Ct

Туре	Cable symbol	Standard price
Standard	P (1m)	_
(Robot Cables)	S (3m)	_
(nonot Capies)	M (5m)	_
	X06 (6m) ~ X10 (10m)	_
Special length	X11 (11m) ~ X15 (15m)	_
	X16 (16m) ~ X20 (20m)	_
The standard cable for the PC	12 is the repot cable	

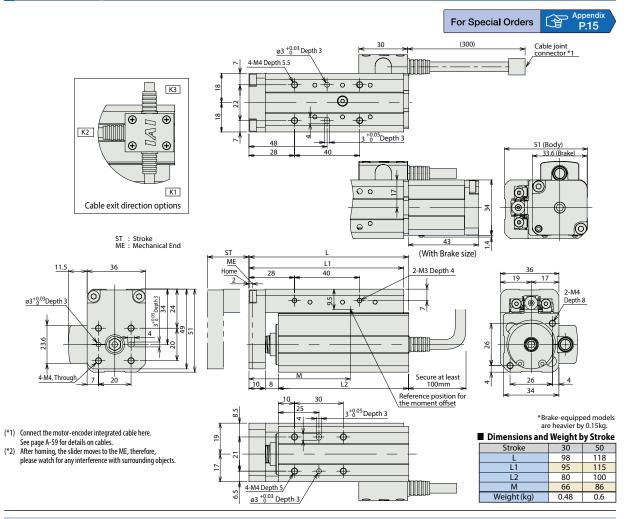
The standard cable for the RCA2 is the robo
 See page A-59 for cables for maintenance.

4 Options			
Name	Option code	See page	Standard price
Brake	В	→ 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	К3	→ A-51	_
Power-saving specification	LA	→ A-52	_

Ball screw

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 dy	namic moment (Note)	Ma: 9.9 N·m, Mb: 9.9 N·m, Mc: 3.3 N·m				
Allowable st	atic moment	Ma: 14.1 N·m, Mb: 14.1 N·m, Mc: 6.7 N·m				
Ambient ope	erating 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.



	②Ap	plicabl	e Conti	ollers
--	-----	---------	---------	--------

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.

	External view	Model number	Features	Maximum number of positioning points	Input power	Power- supply capacity	Standard price	Referen page
Solenoid Valve Type		AMEC-C-20I①-①-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P53
Soletiola valve Type	3	ASEP-C-20I①	Simple controller operable with the same signal as a solenoid valve	3 points			-	→ P54
Solenoid valve multi-axis type PIO specification	day.	MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected					→ P56
Solenoid valve multi-axis type Network specification		MSEP-C	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points				, 130
Positioner type		ACON-C-20I①-①-2-0	Positioning is possible for up to 512	512 points		(Standard) 1.3A rated	_	
Safety-Compliant Positioner Type		ACON-CG-20I①	points	312 points	DC24V	4.4A max. (Power-saving) 1.3A rated 2.5A max.	_	
Pulse Train Input Type (Differential Line Driver)		ACON-PL-20I①-①-2-0	Pulse train input type with differential line driver support	(—)			1	→ P63
Pulse Train Input Type (Open Collector)	è	ACON-PO-20I①-⑪-2-0	Pulse train input type with open collector support	(—)			_	
Serial Communication Type		ACON-SE-20I①-N-0-0	Dedicated Serial Communication	64 points			_	
Program Control Type		ASEL-CS-1-20I①-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			_	→ P67

IAI

RCA2-TCA4NA **326**

lider ype

Mini

Controllers

Rod Type

Mini

Standard

Controllers

able/ .rm/ lat Type

Mini

Standard

Gripper/ Rotary Type

Linear Servo Type

Cleanroom Type

Splash-Proof Type

> ulse Motor

ervo Motor

> ervo otor 00V)

inear Servo Motor

www.electromate.com sales@electromate.com * See page Pre-47 for details on the model descriptions.

[CE] RoHS



RCA2-TWA3NA

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

RCA2 – TWA3NA – Specification Items — Encoder type — Motor type — Lead Series — Type 10:10W Servo 4: Ball screw 4mm 30:30mm I: Incremental

The Simple absolute motor encoder is also considered type "I".

Ball screw 2mm Ball screw 1mm 4S: Lead screw 4mm 2S: Lead screw 2mm 1S: Lead screw 1mm

Stroke Applicable controller A1:ACON ASEL

N: None P: 1m A3:AMEC S: 3m ASEP M:5m

MSEP X□□: Custom Length

Power-saving

See options below.

— Cable length — Options



References (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).

Technical

(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 Motor output (W Max. Load Capacity Rated Model number (mm) thrust (N) orizontal (kg) Vertical (kg) RCA2-TWA3NA-I-10-4-10-2-3-4 0.75 0.25 42.7 Ball RCA2-TWA3NA-I-10-2-10-2-3-4 10 2 1.5 0.5 85.5 ±0.02 50 RCA2-TWA3NA-I-10-1-10-2-3-4 1 3 1 170.9 RCA2-TWA3NA-I-10-4S-①-②-③-④ 4 0.25 0.125 25.1 30 50 Lead RCA2-TWA3NA-I-10-2S-10-20-33-4 10 2 0.5 0.25 50.3 ±0.05 screw RCA2-TWA3NA-I-10-1S-①-②-③-④ 0.5 100.5

Code explanation ① Strok	e ② Applicable con	troller ③	Cable len	gth [Options	*See page	A-71 for de	tails on pus	h motion

		d Maximum S	peed
_	Chualia	2.0	

Lea	Stroke	30 50 (mm)		
*	4	200		
Ball screw	2	100		
1		50		
No.	4	200		
ead screw	2	10	00	
Leg	1	5	0	

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

U Stroke			
Stroke	Standard price		
(mm)	Feed screw		
()	Ball screw	Lead screw	
30	_	_	
50	_	_	

④ Options							
Name	Option code	See page	Standard price				
Brake	В	→ 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	К3	→ A-51	_				
Power-saving specification	LA	→ A-52	_				

© Cable Leligtii		
Type	Cable symbol	Standard price
Standard	P (1m)	_
(Robot Cables)	S (3m)	_
	M (5m)	_
	X06 (6m) ~ X10 (10m)	_
Special length	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.

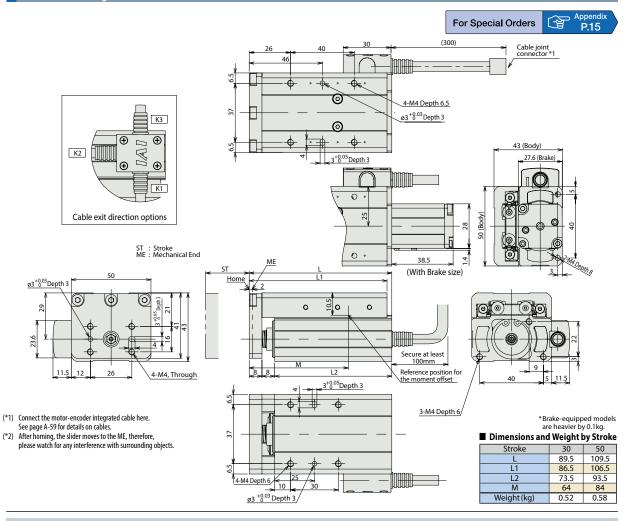
Actuator Specifications				
Item		Description		
Drive System	i	Ball screw/Lead screw, ø4mm, rolled C10		
Lost Motion		Ball screw: 0.1mm or less Lead screw: 0.3mm or less (initial value)		
Frame		Material: Aluminum, white alumite treated		
Allowable dy	namic moment (Note)	Ma: 9.9 N·m, Mb: 9.9 N·m, Mc: 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		
l	Rall 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

327 RCA2-TWA3NA





②Applicable 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.

	External view	Model number	Features	Maximum number of positioning points	Input power	Power- supply capacity	Standard price	Referen page
Solenoid Valve Type		AMEC-C-10I①-①-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P53
Soleriola valve Type		ASEP-C-10I①	Simple controller operable with the same signal as a solenoid valve	3 points			_	→ P54
Solenoid valve multi-axis type PIO specification	line.	MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected				_	→ P56
Solenoid valve multi-axis type Network specification		MSEP-C	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points				, 130
Positioner type	I	ACON-C-10I①-①-2-0	Positioning is possible for up to 512	512 points DC24V		(Standard) 1.3A rated	1	
Safety-Compliant Positioner Type		ACON-CG-10I()-(V)-2-0	points		4.4A max. (Power-saving)	_		
Pulse Train Input Type (Differential Line Driver)	Ó	ACON-PL-10I①-①-2-0	Pulse train input type with differential line driver support	(—)		1.3A rated 2.5A max.	_	→ P63
Pulse Train Input Type (Open Collector)	ć	ACON-PO-10I①-①-2-0	Pulse train input type with open collector support	(—)			_	
Serial Communication Type		ACON-SE-10I①-N-0-0	Dedicated Serial Communication	64 points			_	
Program Control Type		ASEL-CS-1-10I①-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			_	→ P67

RCA2-TWA3NA **328**

Slider Type

Mini

Controlle

Rod Type

Mini

Standard

Controllers

Table/ Arm/ Tat Type

Mini

Standard

Gripper/ Rotary Type

Linear Servo Type

Cleanroom Type

Splash-Proof Type

> ulse Motor

ervo Motor

> ervo otor 00V)

inear 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 -20 — Encoder type — Motor type — Lead Series — Type Stroke Applicable controller — Cable length — Options 20:20W Servo 6: Ball screw 6mm 30:30mm A1:ACON I: Incremental N: None See options below. 4: Ball screw 4mm 50: 50mm 2: Ball screw 2mm ASEL The Simple absolute motor P: 1m encoder is also A3:AMEC S: 3m 6S: Lead screw 6mm considered type "I". 4S: Lead screw 4mm 2S: Lead screw 2mm ASEP M:5m MSEP X□□: Custom Length * See page Pre-47 for details on the model descriptions.

[C €] RoHS

Power-saving



References (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.

Technical

(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. Loac Horizontal (kg)		Rated thrust (N)	Positioning Repeatability (mm)	Stroke (mm)
RCA2-TWA4NA-I-20-6-①-②-③-④			6	2	0.5	33.8		
RCA2-TWA4NA-I-20-4-①-②-③-④	20	Ball screw	4	3	0.75	50.7	±0.02	30 50
RCA2-TWA4NA-I-20-2-①-②-③-④			2	6	1.5	101.5		
RCA2-TWA4NA-I-20-6S-①-②-③-④			6	0.25	0.125	19.9		
RCA2-TWA4NA-I-20-4S-①-②-③-④	20	Lead screw	4	0.5	0.25	29.8	±0.05	30 50
RCA2-TWA4NA-I-20-2S-①-②-③-④			2	1	0.5	59.7		

	■ St	roke and	d Maximum S _l	peed
e		Stroke	,30	
	Lea	d	(mm)	(1

Stroke Lead		30 (mm)	50 (mm)
W	6	270<220>	300
Ball screw	4	200	
Ba	2	100	
ew	6	220	300
ead screw	4	200	
Γe	2	10	00

Code explanation (a) Stroke (a) Applicable controller (a) Cable length (4) Options *See page A-71 for details on push motion

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

U JU OKE			
Stroke (mm)	Standard price		
	Feed screw		
	Ball screw	Lead screw	
30	_	_	
50	_	_	

4 Options					
Name	Option code	See page	Standard price		
Brake	В	→ 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	К3	→ A-51	_		
Power-saving specification	LA	→ A-52	_		

③Cable Length	③Cable Length				
Туре	Cable symbol	Standard price			
Standard	P (1m)	_			
(Robot Cables)	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.

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 sta	atic 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	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.

Pulse Motor

Appendix P.15 For Special Orders Cable joint connector *1

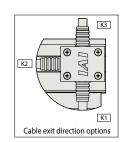
48 (Body) 33.6 (Brake)

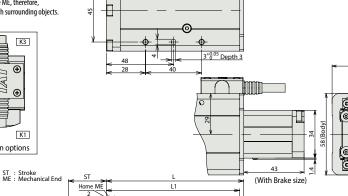
3-M4 Depth 8

(*1) Connect the motor-encoder integrated cable here.

Dimensional Drawings

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.

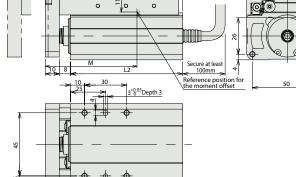




⊚

ø3 ^{+0.03} Depth 3 4-M4 Depth 7

(300)



*Brake-equipped models are heavier by 0.15kg. ■ Dimensions and Weight by Stroke Stroke 50 98 95 118 115 80 100 66 86 Weight (kg) 0.65 0.77

②Applicable Controllers

58

ø3^{+0.03}Depth

4-M4

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.

ø3^{+0.03}Depth 3

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power- supply capacity	Standard price	Reference page	
Calamaid Valua Tuma		AMEC-C-20I①-①-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P537	
Solenoid Valve Type	1	ASEP-C-20I①-⑪-2-0	Simple controller operable with the same signal as a solenoid valve	3 points			_	→ P547	
olenoid valve multi-axis type PIO specification	1000	MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected					→ P563	
Solenoid valve multi-axis type Network specification	iiii	MSEP-C	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points		(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.		_	7 2003
Positioner type	I.	ACON-C-20I①-①-2-0	Positioning is possible for up to 512	F12 mainta			_		
Safety-Compliant Positioner Type		ACON-CG-20I①	points	512 points	DC24V		_		
Pulse Train Input Type (Differential Line Driver)	Ó	ACON-PL-20I①-①-2-0	Pulse train input type with differential line driver support	()			_	→ P631	
Pulse Train Input Type (Open Collector)	i	ACON-PO-20I①-⑪-2-0	Pulse train input type with open collector support	(—)			_		
Serial Communication Type		ACON-SE-20I①-N-0-0	Dedicated Serial Communication	64 points			_		
Program Control Type		ASEL-CS-1-20I①-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			_	→ P675	

IAI

RCA2-TWA4NA **330**

www.electromate.com sales@electromate.com * See page Pre-47 for details on the model descriptions.

CE RoHS



Table Arm Flat Typ

RCA2-TFA3NA

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

RCA2 – TFA3NA – Specification Items — Encoder type — Motor type — Lead Series — Type Stroke 10:10W Servo 4: Ball screw 4mm 30:30mm I: Incremental

The Simple absolute motor encoder is also considered type "I".

2: Ball screw 2mm 50: 50mm 1: Ball screw 1mm 4S: Lead screw 4mm 2S: Lead screw 2mm 1S: Lead screw 1mm

 Applicable controller A1:ACON ASEL

N: None P: 1m A3:AMEC S: 3m ASEP M:5m

MSEP X□□: Custom Length

Power-saving

See options below.

Cable length — Options

Technical References



- (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.

■ Stroke and Maximum Speed

30

Stroke

(3) See page A-71 for details on push motion.

Actuator Specifications

RCA2-TFA3NA-I-10-1S-①-②-③-④

■ Leads and Payloads Motor output (W) Max. Load Capacity Rated Stroke Model number (mm) thrust (N) orizontal (kg) Vertical (kg) RCA2-TFA3NA-I-10-4-①-②-③-④ 0.75 0.25 42.7 Ball RCA2-TFA3NA-I-10-2-①-②-③-④ 10 2 1.5 0.5 85.5 ±0.02 50 RCA2-TFA3NA-I-10-1-10-12-3-4 1 3 1 170.9 RCA2-TFA3NA-I-10-4S-1-2-3-4 4 0.25 0.125 25.1 Lead 30 50 RCA2-TFA3NA-I-10-2S-10-20-30-40 10 2 0.5 0.25 50.3 ±0.05 screw

n)		Lea	d \	(mm)	(mm)
	Ball screw	4	20	00	
))		2	10	00	
		Ba	1	5	0
		ew	4	20	00
))	-	Lead screw	2	10	00
	-	res	1	5	0

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

1

1

(Unit: mm/s)

UStroke			
Stroke	Standard price		
(mm)	Feed screw		
()	Ball screw	Lead screw	
30	_	_	
50	_	_	

4 Options			
Name	Option code	See page	Standard price
Brake	В	→ 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	К3	→ A-51	_
Dower saving specification	1.0	→ A E2	

100.5

0.5

© cabic Echigan		
Type	Cable symbol	Standard price
Standard	P (1m)	_
(Robot Cables)	S (3m)	_
(RODOL Cables)	M (5m)	_
	X06 (6m) ~ X10 (10m)	_
Special length	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.

Actuator Specifications				
	Item	Description		
Drive System	1	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 sta	atic 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	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.



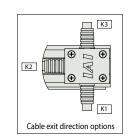
28 (Body) 27.6 (Brake)

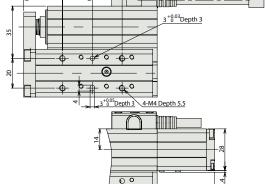
0

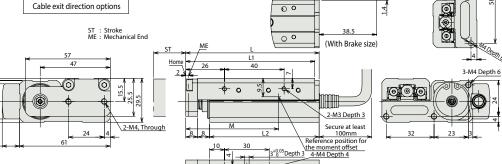
(*1) Connect the motor-encoder integrated cable here.

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) 0.4 0.48

(300)

②Applicable Controllers

11.5

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
		AMEC-C-10I①-①-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P537
Solenoid Valve Type	1	ASEP-C-10I①-①-2-0	Simple controller operable with the same signal as a solenoid valve	3 points			_	→ P547
Solenoid valve multi-axis type PIO specification	1000	MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected		DC24V			→ P563
Solenoid valve multi-axis type Network specification		MSEP-C	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points		(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	_	→ P303
Positioner type	I.	ACON-C-10I①-①-2-0	Positioning is possible for up to 512	512 points			_	
Safety-Compliant Positioner Type		ACON-CG-10I①	points	312 points			_	
Pulse Train Input Type (Differential Line Driver)		ACON-PL-10I①-①-2-0	Pulse train input type with differential line driver support	()			_	→ P63
Pulse Train Input Type (Open Collector)	i	ACON-PO-10I①	Pulse train input type with open collector support	(—)			_	
Serial Communication Type		ACON-SE-10I①-N-0-0	Dedicated Serial Communication	64 points			_	
Program Control Type		ASEL-CS-1-10I①-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			_	→ P675

IAI

RCA2-TFA3NA **332**

Slider Type

Mini

Controllers

Rod Type

Mini

Standard

Controllers Integrated

able/ arm/ lat Type

Mini

Standard

Gripper/ Rotary Type

_inear Servo Type

Cleanroom Type

Splash-Proof Type

> ulse Notor

Servo Motor

> ervo otor 00V)

_inear Servo Motor



RCA2-TFA4NA

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

RCA2 — TFA4NA — 20 Specification Items Type — Encoder type — Motor type — Lead Series — Stroke Applicable controller Cable length — Options 20:20W Servo 6: Ball screw 6mm 30:30mm A1:ACON See options below. I: Incremental N: None 4: Ball screw 4mm 50: 50mm 2: Ball screw 2mm The Simple absolute P: 1m encoder is also A3:AMEC S: 3m 6S: Lead screw 6mm considered type "I". ASEP M:5m 4S: Lead screw 4mm 2S: Lead screw 2mm MSEP X□□: Custom Length * See page Pre-47 for details on the model descriptions.

C € RoHS

Power-saving



Technical References

- (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 Motor output (W) Lead Max. Load Capacity Rated Model number thrust (N) Vertical (kg) RCA2-TFA4NA-I-20-6-①-②-③-④ 6 33.8 Ball 30 50 RCA2-TFA4NA-I-20-4-10-20-33-4 20 3 0.75 50.7 ±0.02 RCA2-TFA4NA-I-20-2-10-20-33-4 2 6 1.5 101.5 RCA2-TFA4NA-I-20-6S-①-②-③-④ 6 0.25 0.125 19.9 RCA2-TFA4NA-I-20-4S-①-②-③-④ Lead 20 4 0.5 0.25 29.8 ±0.05 screv 50 RCA2-TFA4NA-I-20-2S-10-20-33-4

3)	Cable length	(4) Options	*See page A-71	for details on	push motion

■ Stroke and Maximum Speed

Lea	Stroke	30 (mm)	50 (mm)	
N.	6	270<220>	300	
Ball screw	4	200		
Ba	2	100		
Na Na	6	220	300	
Lead screw	4	200		
Leg	2	100		

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

①Stroke

Stroke	Standard price		
(mm)	Feed screw		
(11111)	Ball screw	Lead screw	
30	_	_	
50	_	_	

Code explanation ① Stroke ② Applicable controller ③

Name	Option code	See page	Standard price
Brake	В	→ 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	К3	→ A-51	_
Power-saving specification	LA	→ A-52	_

③Cable Length

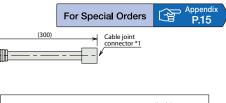
Type	Cable symbol	Standard price
Standard	P (1m)	_
(Robot Cables)	S (3m)	_
(RODOL Cables)	M (5m)	_
	X06 (6m) ~ X10 (10m)	_
Special length	X11 (11m) ~ X15 (15m)	_
	X16 (16m) ~ X20 (20m)	_

^{*}The standard cable for the RCA2 is the robot cable.

|--|

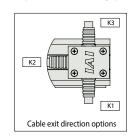
Item	Description		
	Ball screw/Lead screw, ø6mm, rolled C10		
	Ball screw: 0.1mm or less Lead screw: 0.3mm or less (initial value)		
	Material: Aluminum, white alumite treated		
namic moment (Note)	Ma: 9.9 N·m, Mb: 9.9 N·m, Mc: 3.3 N·m		
atic moment	Ma: 14.1 N·m, Mb: 14.1 N·m, Mc: 6.7 N·m		
rating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)		
Lead screw specification	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles		
Ball screw specification	5,000km or 50 million cycles		
	vnamic moment (Note) atic moment rrating temperature, humidity Lead screw specification		

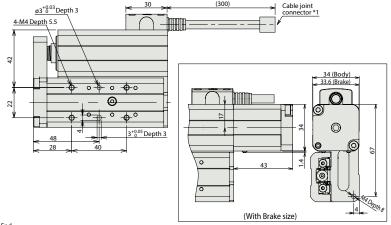
(Note) For cases when the guide service life has been set to 5,000km.

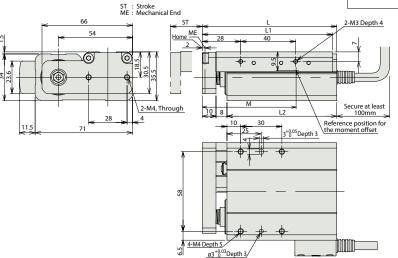


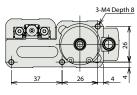
(*1) Connect the motor-encoder integrated cable here.

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

Dilliensions 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					

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	Referenc page	
Calanaid Valua Tura		AMEC-C-20I①-①-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P537	
Solenoid Valve Type	1	ASEP-C-20I①-⑪-2-0	Simple controller operable with the same signal as a solenoid valve	3 points			_	→ P547	
Solenoid valve multi-axis type PIO specification	and a	MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected					→ P563	
Solenoid valve multi-axis type Network specification		MSEP-C	Field network-ready positioner type, 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.	_	→ F303	
Positioner type		ACON-C-20I ①-①-2-0	Positioning is possible for up to 512	512 points			1.3A rated	_	
Safety-Compliant Positioner Type		ACON-CG-20I①	points				_		
Pulse Train Input Type (Differential Line Driver)	C)	ACON-PL-20I①-①-2-0	Pulse train input type with differential line driver support	(—)			_	→ P631	
Pulse Train Input Type (Open Collector)	ė	ACON-PO-20I①	Pulse train input type with open collector support	(—)					
Serial Communication Type		ACON-SE-20I①-N-0-0	Dedicated Serial Communication	64 points			_		
Program Control Type		ASEL-CS-1-20I①-⑪-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			_	→ P67	

IAI

RCA2-TFA4NA 334





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

Model Specification Items RCA2 —

TA4C 10

* See page Pre-47 for details on t

CE RoHS

Table Arm Flat Type

l: li	Encoder type — ncremental The Simple abso-	10: 10W Servo motor	Lead — 6: 6mm 4: 4mm	Stroke — Ap 20: 20mm	oplicable controlle A1:ACON ASEL	r — Cable length N: None P: 1m	— Options See options below.
lu	ute encoder is also onsidered type "I".		2: 2mm	100: 100mm (10mm pitch increments)	A3: AMEC ASEP MSEP	S: 3m M:5m X□□:Custom Length	
C. C				Photo above sh	nows the TA3C.	Technical References	wer-saving Appendix P.5
			Note	0.3 G (0. accelera	.2G in the case of 2mr	n the actuator is operated n-lead and vertical usage n case of 2mm-lead and v push motion.). The upper limit for

Actuator Specifications																							
■ Leads and Payloads ■ Stroke and Maximum Speed																							
Model number	Motor output (W)	Feed Screw	Lead (mm)	Max. Loac	Capacity Vertical (kg)	Rated thrust (N)	Stroke (mm)	Lea	Stroke	20~100 (every 10mm)													
RCA2-TA4C-I-10-6-①-②-③-④					6	1	0.5	28		3	6	300											
RCA2-TA4C-I-10-4-①-②-③-④	10	Ball screw															4	2	1	43	20~100 (every 10mm)	4	200
RCA2-TA4C-I-10-2-①-②-③-④			2	3	1.5	85		Ball	2	100													
Code explanation ① Stroke ② App	olicable Co	ntroller	③ Cable I	ength 🚇	Options	*See page A-	71 for details on p	ush moti	on.	(Unit: mm/s													

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

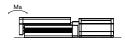
4 Options			
Name	Option code	See page	Standard price
Brake	В	→ A-42	_
Cable exit direction (top)	CJT	→ A-42	_
Cable exit direction (right)	CJR	→ A-42	_
Cable exit direction (left)	CJL	→ A-42	_
Cable exit direction (bottom)	CJB	→ A-42	_
Power-saving specification	LA	→ A-52	_
Non-motor end specification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

③Cable Length		
Type	Cable symbol	Standard price
Standard (Robot Cables)	P (1m)	_
	S (3m)	_
(Nobol Cables)	M (5m)	_
	X06 (6m) ~ X10 (10m)	_
Special length	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.

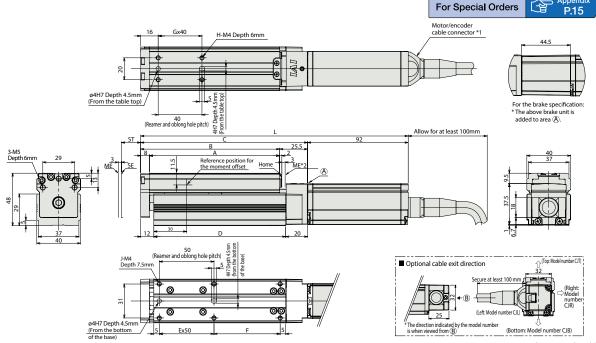
Actuator Specifications	
ltem	Description
Drive System	Ball screw, ø6mm, rolled C10
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Allowable dynamic moment (*)	Ma: 4.2 N·m, Mb: 6 N·m, Mc: 8.2 N·m
Ambient operating temperature, humidity	0 to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

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









(*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
Α	89	99	109	119	129	139	149	159	169
В	97	107	117	127	137	147	157	167	177
С	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
Н	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

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	Referenc page
Calamaid Valua Tima		AMEC-C-10I①-①-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P537
Solenoid Valve Type		ASEP-C-10I①-⑪-2-0	Simple controller operable with the same signal as a solenoid valve	3 points			_	→ P547
Solenoid valve multi-axis type PIO specification	lune.	MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected					→ P563
Solenoid valve multi-axis type Network specification		MSEP-C	Field network-ready positioner type, 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.	_	7 7503
Positioner type		ACON-C-10I ①-①-2-0	Positioning is possible for up to 512	512 points			_	
Safety-Compliant Positioner Type		ACON-CG-10I①	points				_	
Pulse Train Input Type (Differential Line Driver)	C)	ACON-PL-10I①-①-2-0	Pulse train input type with differential line driver support	()			_	→ P63
Pulse Train Input Type (Open Collector)	i	ACON-PO-10I①-①-2-0	Pulse train input type with open collector support	(—)			_	
Serial Communication Type		ACON-SE-10I①-N-0-0	Dedicated Serial Communication	64 points			_	
Program Control Type		ASEL-CS-1-10I①-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			_	→ P67

IAI

RCA2-TA4C **336**

Table/ Arm/ Flat Type



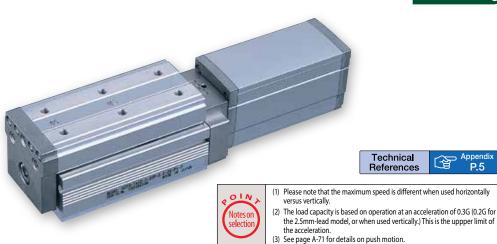
RCA2-TA5C

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



[C €] RoHS

Power-saving



Actuator Specifications								
■ Leads and Payloads ■ Stroke and Maximum Speed								
Model number	Motor output (W)	Lead (mm)	Max. Load Horizontal (kg)	Capacity Vertical (kg)	Rated thrust (N)	Stroke (mm)	Stroke Lead	25~200 (every 25mm)
RCA2-TA5C-I-20-10-①-②-③-④		10	2	1	34		10	465<400>
RCA2-TA5C-I-20-5-①-②-③-④	20	5	3.5	2	68	25~100 (every 25mm)	5	250
RCA2-TA5C-I-20-2.5-①-②-③-④		2.5	5	3	137		2.5	125
Code explanation Stroke Applicable Controller Cable length Options *See page A-71 for details on push motion.								

① Stroke	
①Stroke (mm)	Standard price
25	_
50	-
75	_
100	_

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

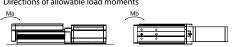
*The standard cable for the RCA2 is the robot cable. *See page A-59 for cables for maintenance.

Actuator Specifications

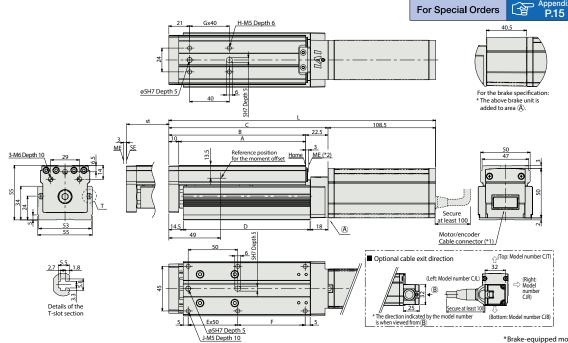
4 Options			
Name	Option code	See page	Standard price
Brake	В	→ A-42	_
Cable exit direction (top)	CJT	→ A-42	-
Cable exit direction (right)	CJR	→ A-42	_
Cable exit direction (left)	CJL	→ A-42	_
Cable exit direction (bottom)	CJB	→ A-42	_
Power-saving specification	LA	→ A-52	-
Non-motor end specification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

Actuator Specifications					
ltem	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



 $337_{\tiny \mathsf{RCA2-TA5C}}$



*Brake-equipped models are heavier by 0.3kg.

■ Dimensions and Weight by Stroke

	Stroke	25	50	75	100
_	Without brake	244	269	294	319
-	With brake	284.5	309.5	334.5	359.5
	Α	103	128	153	178
	В	113	138	163	188
	С	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
	Н	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.

SE : Stroke end ME : Mechanical end

② Applicable Controllers		②Appl	icable	Control	lers
--------------------------	--	-------	--------	---------	------

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
Colon aid Valva Tuna		AMEC-C-20SI (1)-(1)-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P537
Solenoid Valve Type	ASEP-C-20SI①-⑪-2-0	Simple controller operable with the same signal as a solenoid valve	3 points			_	→ P547	
olenoid valve multi-axis type PIO specification	line.	MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected			(Standard) 1.7A rated 5.1A max. (Power-saving) 1.7A rated 3.4A max.		, DE 63
olenoid valve multi-axis type Network specification	iiii	MSEP-C	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points			_	→ P563
Positioner type	I	ACON-C-20SI(])-(j)-2-0	Positioning is possible for up to 512	512 points			_	
Safety-Compliant Positioner Type		ACON-CG-20SI①-⑩-2-0	points	312 points	DC24V		_	
Pulse Train Input Type (Differential Line Driver)	O.	ACON-PL-20SI①-⑪-2-0	Pulse train input type with differential line driver support	()			_	→ P631
Pulse Train Input Type (Open Collector)	è	ACON-PO-20SI①-①-2-0	Pulse train input type with open collector support	(—)			_	
Serial Communication Type		ACON-SE-20SI①-N-0-0	Dedicated Serial Communication	64 points			_	
Program Control Type	ASEL-CS	ASEL-CS-1-20SI①-⑪-2-0	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).
* ② indicates number of axes (1 to 8).
* ② indicates field network specification symbol.

IAI

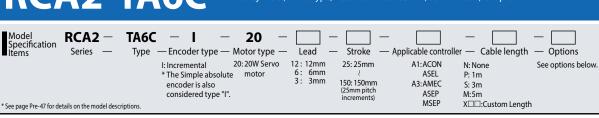
RCA2-TA5C **338**

sales@electromate.com



RCA2-TA6C

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





Power-saving



(1) Please note that the maximum speed is different when used horizontally

Technical References

- (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 uppper limit of the acceleration.
- (3) See page A-71 for details on push motion.

Actuator Specification

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

Datione	
①Stroke (mm)	Standard price
25	_
50	_
75	_
100	_

Option code	See page	Standard price
В	→ A-42	_
CJT	→ A-42	_
CJR	→ A-42	_
CJL	→ A-42	_
CJB	→ A-42	_
LA	→ A-52	1
	B CJT CJR CJL CJB	$\begin{array}{ccc} \mathbf{B} & \rightarrow \mathrm{A-42} \\ \mathbf{CJT} & \rightarrow \mathrm{A-42} \\ \mathbf{CJR} & \rightarrow \mathrm{A-42} \\ \mathbf{CJL} & \rightarrow \mathrm{A-42} \\ \mathbf{CJL} & \rightarrow \mathrm{A-42} \\ \mathbf{CJB} & \rightarrow \mathrm{A-42} \end{array}$

NM

→ A-52

③Cable Length

Type	Cable symbol	Standard price
Standard (Robot Cables)	P (1m)	_
	S (3m)	_
(MODOL Capies)	M (5m)	_
	X06 (6m) ~ X10 (10m)	_
Special length	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.

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



Non-motor end specification

125

150



* Brake-equipped models are heavier by 0.4kg.

■ Dimensions and Weight by Stroke

Weight (kg)

| Stroke | 25 | 50 | 75 | 100 | 125 | 150 | Without brake | 244.5 | 269.5 | 294.5 | 319.5 | 344.5 | 369.5 | Withorake | 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 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5 | 272.5

50.5 75.5 4 4

1.8

110.5 135.5 160.5 185.5 210.5 235.5

For Special Orders P.15 H-M5 Depth 8 ø5H7 Depth 5 For the brake specification: The above brake unit is added to area (A) 26.5 3 ME (*2) Reference position for the moment offset Hom • lΘ Secure 19.5 Motor/encoder Cable connector (*1) (Top: Model number CJT) ■ Optional cable exit direction 0 0 0 li) =numbe CJR) 0 0 0 (Bottom: Model number CJB) * The direction indicated by the model number . 1.5 Ex50

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

Details of the T-slot section

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

SE: Stroke end ME : Mechanical end

Dimensional Drawings

3-M6 Depth 13

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.

ø5H7 Depth 5

J-M5 Depth 10

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-20I①-⑪-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P537
Solehold valve Type	3	ASEP-C-20I①-⑪-2-0	Simple controller operable with the same signal as a solenoid valve	3 points			_	→ P547
Solenoid valve multi-axis type PIO specification	luna i	MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected					→ P563
Solenoid valve multi-axis type Network specification	1111	MSEP-C	Field network-ready positioner type, allowing up to 8 axes to be connected 256 points					7 1303
Positioner type		ACON-C-20I①-⑪-2-0	Positioning is possible for up to 512	512 points		(Standard) 1.3A rated	_	
Safety-Compliant Positioner Type		ACON-CG-20I①-⑩-2-0	points	312 points	DC24V	4.4A max. (Power-saving)	_	
Pulse Train Input Type (Differential Line Driver)	Ó	ACON-PL-20I①-①-2-0	Pulse train input type with differential line driver support	()		1.3A rated 2.5A max.	_	→ P631
Pulse Train Input Type (Open Collector)	7	ACON-PO-20I①-①-2-0	Pulse train input type with open collector support	(—)			_	
Serial Communication Type		ACON-SE-20I①-N-0-0	Dedicated Serial Communication	64 points			_	
Program Control Type	The state of the s	ASEL-CS-1-20I①-⑪-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			_	→ P675

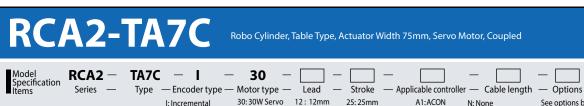
IAI

RCA2-TA6C 340



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





The Simple absolute motor

I: Incremental

encoder is also

considered type "I".

CE RoHS

Power-saving

See options below.

N: None

P: 1m

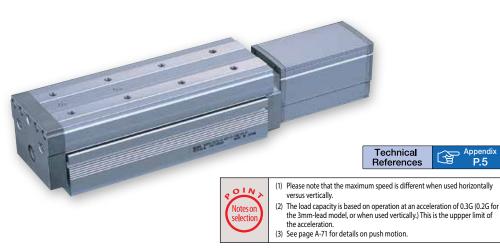
S: 3m

M:5m

 $X\square\square$:Custom Length

A3:AMEC

ASEP MSEP



200: 200mm (25mm pitch increments)

6: 6mm 3: 3mm

Actuator Specifications									
■ Leads and Payloads ■ Stroke and Maximum Speed									
Model number	Motor output (W)	Lead (mm)	Max. Load	Capacity Vertical (kg)	Rated thrust (N)	Stroke (mm)	Stroke Lead	25~200 (every 25mm)	
RCA2-TA7C-I-30-12-①-②-③-④		12	4	1	26		12	600<580>	
RCA2-TA7C-I-30-6-①-②-③-④	30	6	6	2.5	53	25~200 (every 25mm)	6	300	
RCA2-TA7C-I-30-3-①-②-③-④		3	8	4	105		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 endosed in < > apply to vertical settings. (Unit: mm/s)									

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

4 Options			
Name	Option code	See page	Standard price
Brake	В	→ 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	_

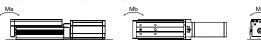
③Cable Length		
Туре	Cable symbol	Standard price
Standard	P (1m)	_
(Robot Cables)	S (3m)	_
(NODOL Cables)	M (5m)	_
	X06 (6m) ~ X10 (10m)	_
Special length	X11 (11m) ~ X15 (15m)	_
	X16 (16m) ~ X20 (20m)	_

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

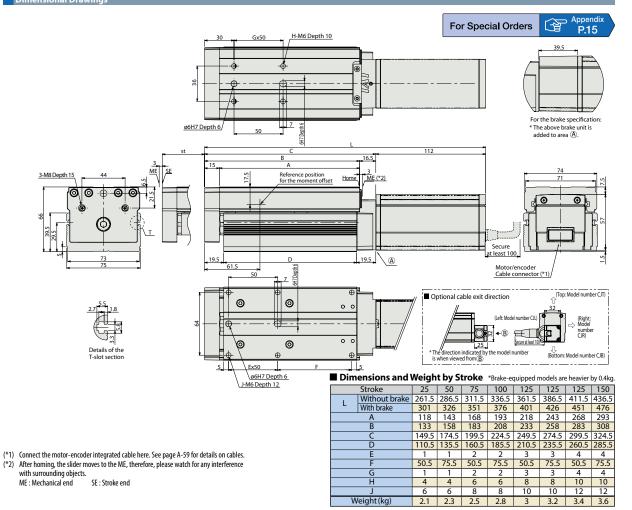
Actuator Specifications	
ltem	Description
Drive System	Ball screw, ø10mm, rolled C10
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, special alumite treated
Allowable static moment	Ma: 42.6 N·m, Mb: 60.8 N·m, Mc:123.2 N·m
Allowable dynamic moment (*)	Ma: 9.91 N·m, 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

Directions of allowable load moments







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-30I①-①-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P53	
soletiola valve type	3	ASEP-C-30I①-⑪-2-0	Simple controller operable with the same signal as a solenoid valve	3 points			_	→ P54	
Solenoid valve multi-axis type PIO specification	True I	MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected				_	→ P56	
Solenoid valve multi-axis type Network specification		MSEP-C	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points		(Standard) 1.3A rated 4.4A max. (Power-saving)			, 130
Positioner type		ACON-C-30I①-⑪-2-0	Positioning is possible for up to 512	512 points	DC24V		-		
Safety-Compliant Positioner Type		ACON-CG-30I①-⑩-2-0	points				_		
Pulse Train Input Type (Differential Line Driver)		ACON-PL-30I①	Pulse train input type with differential line driver support	, ,		1.3A rated 2.2A max.	_	→ P63	
Pulse Train Input Type (Open Collector)	1	ACON-PO-30I①-⑪-2-0	Pulse train input type with open collector support	(—)			-		
Serial Communication Type		ACON-SE-30I①-N-0-0	Dedicated Serial Communication	64 points	4 points		_		
Program Control Type		ASEL-CS-1-30I①-⑪-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			_	→ P67	

IAI

RCA2-TA7C **342**

Slider Type

Mini

Controllers

Rod Type

Mini

Standard

Controllers

able/ Arm/ Flat Type

Mini

Standard

Gripper/ Rotary Type

Linear Servo Type

Cleanroom Type

Splash-Proof Type

> ulse Motor

Servo Motor

> ervo otor 00V)

_inear Servo Motor

sales@electromate.com

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

RoHS

Model Specification Items

CE



Table Arm Flat Type

RCA2-TA4R

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

Stroke

20: 20mm

100: 100mm (10mm pitch increments)

RCA2 — 10 TA4R Series — Encoder type — Motor type – Lead 6: 6mm 4: 4mm 2: 2mm 10: 10W Servo I: Incremental The Simple absolute motor encoder is also considered type "I".

 Applicable controller A1:ACON ASEL A3:AMEC

Cable length N: None P: 1m S: 3m ASEP MSEP M:5m X□□:Custom Lenath

Options See options below.

* Be sure to specify which side the motor is to be mounted (ML/MR)

Power-saving

(Unit: mm/s)



(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).

Technical References

(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		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)	Le	Stroke	20~100 (every 10mm)
RCA2-TA4R-I-10-6-①-②-③-④			6	1	0.5	28	(,		N.	6	300
RCA2-TA4R-I-10-4-①-②-③-④	10	Ball screw	4	2	1	43	±0.02	20~100 (every 10mm)	Ball screw	4	200
RCA2-TA4R-I-10-2-①-②-③-④			2	3	1.5	85			8	2	100
Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options *See page A-71 for details on push motion.											

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

4 Options			
Name	Option code	See page	Standard price
Brake	В	→ 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	_

343	DCA2 TA4D
	RCA2-TA4R

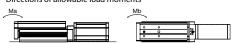
③Cable Length		
Туре	Cable symbol	Standard price
Standard	P (1m)	_
(Robot Cables)	S (3m)	_
(nonot capies)	M (5m)	_
	X06 (6m) ~ X10 (10m)	_
Special length	X11 (11m) ~ X15 (15m)	_
	X16 (16m) ~ X20 (20m)	_

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

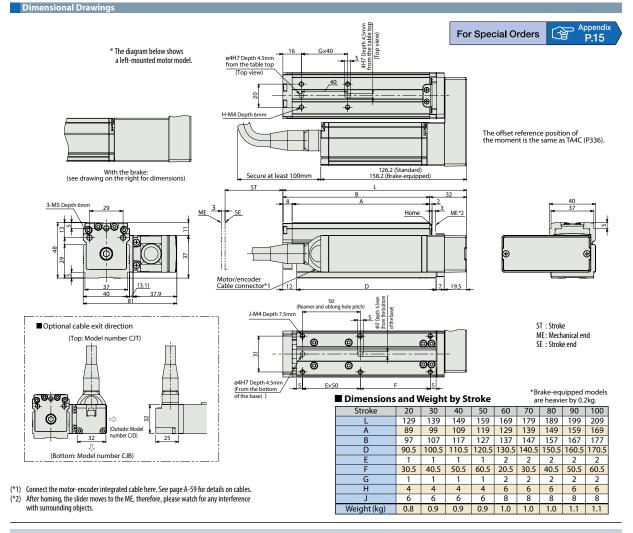
Actuator Specifications	
ltem	Description
Drive System	Ball screw, ø6mm, rolled C10
Lost Motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Allowable dynamic moment (*)	Ma: 4.2 N·m, Mb: 6 N·m, Mc: 8.2 N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

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

Directions of allowable load moments



RCA2-TA4R 344



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.

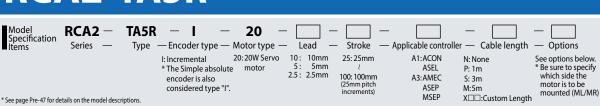
Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power- supply capacity	Standard price	Reference page
Solenoid Valve Type		AMEC-C-10I①-①-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P537
Soletiola valve type	1	ASEP-C-10I①-⑪-2-0	Simple controller operable with the same signal as a solenoid valve	3 points			1	→ P547
Solenoid valve multi-axis type PIO specification	line	MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected				_	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points				71303
Positioner type	I.	ACON-C-10I①-①-2-0	Positioning is possible for up to 512	512 points		(Standard) 1.3A rated	_	
Safety-Compliant Positioner Type		ACON-CG-10I①	points	312 points	DC24V	4.4A max. (Power-saving)	_	
Pulse Train Input Type (Differential Line Driver)	O.	ACON-PL-10I①-①-2-0	Pulse train input type with differential line driver support	(—)		1.3A rated 2.5A max.	_	→ P631
Pulse Train Input Type (Open Collector)	ė.	ACON-PO-10I①2-0	Pulse train input type with open collector support	()			_	
Serial Communication Type		ACON-SE-10I①-N-0-0	Dedicated Serial Communication	64 points			_	
Program Control Type		ASEL-CS-1-10I①-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			_	→ P675

IAI



RCA2-TA5R

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





Power-saving



Technical References





- (1) Please note that the maximum speed is different when used horizontally
- (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 uppper limit of the acceleration.
- (3) See page A-71 for details on push motion.

Actuator Specifications

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

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

	■ Stroke and Maximum Speed				
	Stroke Lead	25~100 (every 25mm)			
	10	465<400>			
	5	250			
	2.5	125			
s o	n push motion.	*The values enclosed in < > (Unit: mm/s) apply to vertical settings.			

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

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

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

(4) Options			
Name	Option code	See page	Standard price
Brake	В	→ 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	
ltem	
Drive System	Ball screw, ø8
Positioning Repeatability	±0.02mm

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)

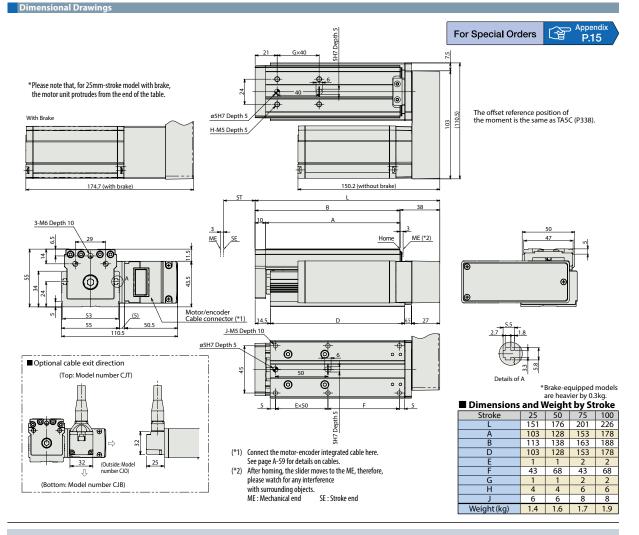
Directions of allowable load moments





 $345_{\scriptscriptstyle \mathsf{RCA2-TA5R}}$





② Applicable Controlle	rs
------------------------	----

	External view	Model number	Features	Maximum number of positioning points	Input power	Power- supply capacity	Standard price	Referen page
Solenoid Valve Type		AMEC-C-20SI (1)-(1)-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P53
Soletiola valve type		ASEP-C-20SI (1)-(11)-2-0	Simple controller operable with the same signal as a solenoid valve	3 points			1	→ P54
Solenoid valve multi-axis type PIO specification	lune.	MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected Field network-ready positioner type, allowing up to 8 axes to be connected 256 points				_	→ P563
Solenoid valve multi-axis type Network specification	!!!!	MSEP-C						, 130
Positioner type		ACON-C-20SI①-⑪-2-0	Positioning is possible for up to 512	512 points	DC24V	(Standard) 1.7A rated 5.1A max. (Power-saving) 1.7A rated 3.4A max.	-	
Safety-Compliant Positioner Type		ACON-CG-20SI①-⑩-2-0	points	312 points			_	
Pulse Train Input Type (Differential Line Driver)		ACON-PL-20SI (1)-(11)-2-0	Pulse train input type with differential line driver support	()			_	→ P63
Pulse Train Input Type (Open Collector)	0	ACON-PO-20SI ①- ①-2-0	Pulse train input type with open collector support				_	
Serial Communication Type		ACON-SE-20SI①-N-0-0	Dedicated Serial Communication	64 points			_	
Program Control Type		ASEL-CS-1-20SI ①- ①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			_	→ P67

IAI

RCA2-TA5R **346**





① Stroke

①Stroke

(mm)

25

50

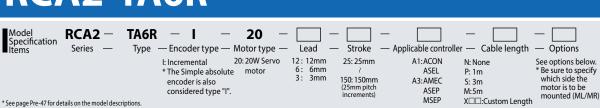
75

100 125

150

RCA2-TA6R

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





Power-saving



Technical References



- (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 uppper limit of the acceleration
- (3) See page A-71 for details on push motion.

Cable symbo

X11 (11m) ~ X15 (15m)

X16 (16m) ~ X20 (20m)

X06 (6m) ~ X10

Actuator Specifications ■ Stroke and Maximum Speed

■ Leads and Payloads							
Model number	Motor			d Capacity	Rated	Stroke	
Model Hallibei	output (W)	(mm)	Horizontal (kg)	Vertical (kg)	thrust (N)	(mm)	
RCA2-TA6R-I-20-12-①-②-③-④		12	2	0.5	17		
RCA2-TA6R-I-20-6-①-②-③-④	20	6	4	1.5	34	25~150 (every 25mm)	
RCA2-TA6R-I-20-3-1-2-3-4		3	6	3	68		

	= stroke und Maximum speed							
		Stroke Lead	25~150 (every 25mm)					
		12	560<500>					
		6	300					
		3	150					
il	s o	n push motion.	*The values enclosed in < > (Unit: mm/s) apply to vertical settings.					

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

gın	(4) Options	*See page A-/1 for details on push motion.	

ol	Standard price
	_
	_
	_
(10m)	_

^{*}The standard cableis the motor-encoder integrated robot cable. * See page A-59 for cables for maintenance.

P (1m)

S (3m)

M (5m)

③Cable Length

Standard

(Robot Cables)

Special length

4 Options			
Name	Option code	See page	Standard price
Brake	В	→ 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	_

ltem
Actuator Specifications

ltem	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

50.5 75.5

4 4 6

6

Weight (kg)

②Applicable Controllers

(Bottom: Model number CJB)

SE : Stroke end

please watch for any interference

with surrounding objects. ME : Mechanical end

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 (1)-(1)-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P537
Soletiold valve type	1	ASEP-C-20I①-⑪-2-0	Simple controller operable with the same signal as a solenoid valve	3 points			_	→ P547
Solenoid valve multi-axis type PIO specification	line	MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected				_	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points		(Standard) 1.3A rated		7 7 303
Positioner type		ACON-C-20I①2-0	Positioning is possible for up to 512	512 points DC24			_	
Safety-Compliant Positioner Type		ACON-CG-20I①-⑩-2-0	points		DC24V	4.4A max. (Power-saving)	_	
Pulse Train Input Type (Differential Line Driver)		ACON-PL-20I①-⑪-2-0	Pulse train input type with differential line driver support	(—)		1.3A rated 2.5A max.	_	→ P631
Pulse Train Input Type (Open Collector)	e.	ACON-PO-20I①-⑪-2-0	Pulse train input type with open collector support	(—)			_	
Serial Communication Type		ACON-SE-20I①-N-0-0	Dedicated Serial Communication	64 points			_	
Program Control Type		ASEL-CS-1-20I①-⑪-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			_	→ P675

IAI

RCA2-TA6R 348

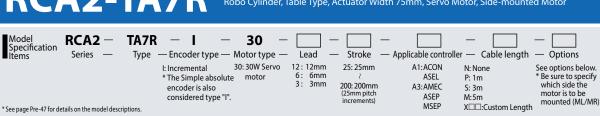
10 10





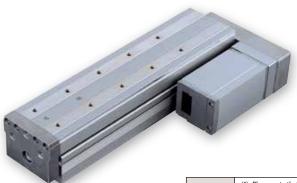
RCA2-TA7R

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





Power-saving



Technical References

- (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 uppper limit of the acceleration
- (3) See page A-71 for details on push motion.

Actuator Specifications

■ Leads and Payloads

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

Stroke and	Maximum Speed
Stroke	25-,200

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

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

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

⊕ Sti oke	
①Stroke (mm)	Standard price
25	_
50	_
75	_
100	_
125	_
150	_
175	_
200	_

4 Options

Name	Option code	See page	Standard price
Brake	В	→ A-42	_
Cable exit direction (top)	CJT	→ A-42	_
Cable exit direction (outside)	CIO	→ 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	_

1	Standard	. (
	(Robot Cables)	S (3m
ı	(MODOL Capies)	M (5n

③Cable Length

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

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

Actuator Specifications

ltem	Description
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

4

10 10 12 12

3.5

10

For Special Orders *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 TA7C (P342). ø6H7 Depth 6 H-M6 Depth 10 154.7 (without brake) 179.2 (with brake) 30.5 3-M8 Depth 15 ME (*2) Home Motor/encoder Cable connector (*1) 6.5 J-M6 Depth 12 ø6H7 Depth 6 ⊚ Optional cable exit direction (Top: Model number CJT) 0 0 E×50 *Brake-equipped models are heavier by 0.4kg. ■ Dimensions and Weight by Stroke 25 | 50 150 | 175 | 200 Stroke 188.5 238.5 263.5 288.5 313.5 338.5 118 143 168 193 218 243 268 293 258 133 158 183 208 233 283 308 (Outside: Model number CJO) 110.5 135.5 160.5 185.5 210.5 235.5 260.5 285.5 (Bottom: Model number CJB) 50.5 75.5 50.5 75.5 50.5 75.5 50.5 75.5

ME: Mechanical end SE: Stroke end

(*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.

Dimensional Drawings

2	land.	ical	مام	Con	المعط	ars

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.

1

2.6 2.8

Weight (kg)

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power- supply capacity	Standard price	Referenc page
Colon oid Volus Time		AMEC-C-30I①-①-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P537
Solenoid Valve Type		ASEP-C-30I①-①-2-0	Simple controller operable with the same signal as a solenoid valve	3 points			_	→ P547
Solenoid valve multi-axis type PIO specification	and a	MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected					→ P563
Solenoid valve multi-axis type Network specification		MSEP-C	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points			_	→ P303
Positioner type	E .	ACON-C-30I①-⑪-2-0	Positioning is possible for up to 512	512 points		(Standard) 1.3A rated	_	
Safety-Compliant Positioner Type		ACON-CG-30I①	points	312 points	DC24V	4.4A max. (Power-saving)	_	
Pulse Train Input Type (Differential Line Driver)		ACON-PL-30I()-())-2-0	Pulse train input type with differential line driver support	()		1.3A rated 2.2A max.	_	→ P63
Pulse Train Input Type (Open Collector)	è	ACON-PO-30I①-①-2-0	Pulse train input type with open collector support	(—)			_	
Serial Communication Type		ACON-SE-30I①-N-0-0	Dedicated Serial Communication	64 points			_	
Program Control Type		ASEL-CS-1-30I①-⑪-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			_	→ P675

IAI

RCA2-TA7R **350**

sales@electromate.com

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



Table Arm Flat Typ



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

XSEL-P/Q

Model Specification Items RCS2 — TCA5N 60 Series — Type — Encoder type — Motor type l: Incremental 60:60W Servo

motor specification

Lead Stroke 10: 10mm 50: 50mm 5: 5mm 2.5: 2.5mm 75: 75mm

T2 Applicable controller T2: SCON-CA SSEL

 Cable length — Options N: None P: 1m S: 3m M:5m See options below.

X□□: Custom length R□□: Robot cable

C € RoHS

*CE compliance is optional



Technical References

(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	Feed		Max. Load	l Capacity		Positioning repeatability	Stroke
Wiodel Hullibei	output (W)	Screw	(mm)	Horizontal (kg)	Vertical (kg)	thrust (N)	(mm)	(mm)
RCS2-TCA5N-I-60-10-11-T2-2-3			10	5	1.5	89		
RCS2-TCA5N-I-60-5-①-T2-②-③	60	Ball screw	5	10	3	178	±0.02	50 75
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.

→ A-51

■ Stroke and Maximum Speed

Stroke Lead	50 (mm)	75 (mm)		
10	280<230>	380<330>		
5	250<230>	250		
2.5	125			

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

Ma direction: 100mm or less, Mb, Mc direction: 100mm or less

5,000km or 50 million cycles

①Stroke	
Stroke (mm)	Standard price
50	_
75	_

③ Options			
Name	Option code	See page	Standard price
Brake	В	→ A-42	_
CE compliance	CE	→ A-42	_
Connector cable exits from the left	K1	→ A-51	_

②Cable Length Type Cable symbol Standard Price **P** (1m) Standard **S** (3m) **M** (5m) X06 (6m) ~ X10 (10m) Special length X11 (11m) ~ X15 (15m) X16 (16m) ~ X20 (20m) R01 (1m) ~ R03 (3m) R04 (4m) ~ R05 (5m) Robot Cable R06 (6m) ~ R10 (10m) R11 (11m) ~ R15 (15m) R16 (16m) ~ R20 (20m)

* See page A-59 for cables for maintenance.

		Actuator Specifications	
d price		ltem	Description
-		Drive System	Ball screw, ø8mm, rolled C10
-		Lost Motion	0.1 mm 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: 100n
		Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

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

Connector cable exits from the front

Connector cable exits from the right

.ppenai **P.15**

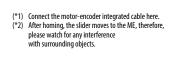
For Special Orders

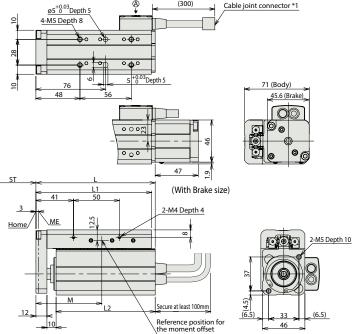
Dimensional Drawings

Reference position for the moment offset

4-M5 Depth 12

ø5 0 Depth 5





36

(300)

ector cable exit direction> (Option) the figure above	15 50
	82
Model number: K2 Model number: K3	2 4-M5 Depth 7/ ø5 +0.03 Depth 5

ST: Stroke ME: Mechanical End

*Brake-equipped models are heavier by 0.26kg.

■ Dimensions and Weight by Stroke Stroke 75 155 151 130 126 108 133 89 105.5 Weight (kg)

Applicable Controllers

NC32 series actuators cari bi	RCS2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.							
Name	External view	Model number		Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Positioner Type			Up to 512 positioning points are supported	512 points				
Solenoid mode	F1	SCON-CA-60I-NP-2-①	Can be operated with the same controls used for solenoid valves	7 points	Single- phase 100 VAC	218 VA max.	_	→ P643
Network mode	1	3CON-CA-001-NF-2-(1)	Can be moved by direct numerical specification	768 points	Single- phase	*Varies depending on the		7 1043
Pulse-train input control mode			Can be controlled using pulse trains	(—)	200 VAC	controller. Refer to the operation	_	
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)	manual for details.	_	→ P685
Program control type 1 or 6 axes	Pilita	XSEL-(ii)-1-60I-N1-EEE-2-3	Program operation is supported Up to six axes can be operated	20,000 points			_	→ P695

*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.

IAI

RCS2-TCA5N 352

Table/ Arm/ Flat Type

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



Table Arm Flat Type



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

Model Specification Items RCS2 - TWA5N60 Series — Type — Encoder type — Motor type —

60:60W Servo I: Incremental motor specification

Lead Stroke 10: 10mm 5: 5mm 2.5: 2.5mm 50: 50mm

T2 — Applicable controller — Cable length — Options T2: SCON-CA SSEL XSEL-P/Q

See options below.

N: None Se P: 1m S: 3m M:5m X□□: Custom length R□□: Robot cable

C € RoHS *CE compliance is optional.



Technical References



(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	Feed	Lead	Max. Load	l Capacity		Positioning repeatability	Stroke	
Model Humber	output (W)	Screw	(mm)	Horizontal (kg)	Vertical (kg)	thrust (N)	(mm)	(mm)	
RCS2-TWA5N-I-60-10-①-T2-②-③			10	5	1.5	89			
RCS2-TWA5N-I-60-5-①-T2-②-③	60	60	Ball screw	5	10	3	178	±0.02	50 75
RCS2-TWA5N-I-60-2.5-①-T2-②-③			2.5	20	6	356			

■ Stroke and Maximum Speed

Stroke Lead	50 (mm)	75 (mm)	
10	280<230>	380<330>	
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	_

③ Options			
Name	Option code	See page	Standard price
	_		

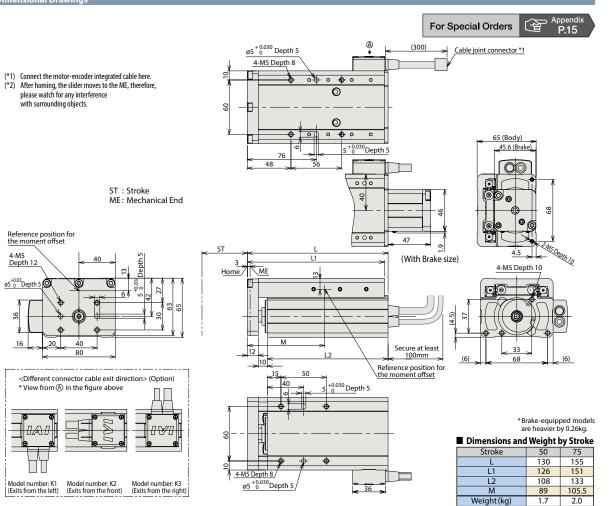
Option code	See page	Standard price
В	→ A-42	_
CE	→ A-42	_
K1	→ A-51	_
K2	→ A-51	_
K3	→ A-51	_
	CE K1 K2	CE → A-42 K1 → A-51 K2 → A-51

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

^{*} See page A-59 for cables for maintenance.

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



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			Up to 512 positioning points are supported	512 points				
Solenoid mode	W	SCON CA COLNID 2 ©	Can be operated with the same controls used for solenoid valves	7 points	Single- phase 100 VAC	218 VA max.	_	
Network mode	91.83	SCON-CA-60I-NP-2-①	Can be moved by direct numerical specification	768 points	Single- phase 200 VAC	*Varies depending on the		→ P643
Pulse-train input control mode			Can be controlled using pulse trains (—)	(—)		controller. Refer to the operation	_	
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)	manual for details.	_	→ P685
Program control type 1 or 6 axes	911174	XSEL((1)-1-60I-N1-EEE-2-3	Program operation is supported Up to six axes can be operated	20,000 points			_	→ P695

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

IAI

RCS2-TWA5N **354**

Table/ Arm/ Flat Type



Mini

Standard

Controllers Integrated

> Rod Type

Mini

Standard

Table Arm Flat Type

Flat Typ

Standard

Gripper/ Rotary Type

> Linear Servo Type

Cleanroom Type

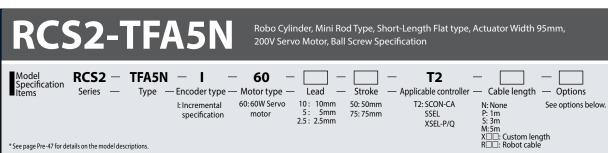
Splash-Proof Type

> Pulse Motor

Servo Motor (24V)

Servo Motor (200V)

> Linear Servo Motor



RoHS
*CE compliance is optional.

Actuator Specifications

RCS2-TFA5N-I-60-2.5-①-T2-②-③



(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

(2) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Technical References

(3) See page A-71 for details on push motion.

■ Leads and Payloads								
Model number	Motor	Feed			Max. Load Capacity		Positioning repeatability	, Stroke
Model Humber	output (W)	Screw	(mm)	Horizontal (kg)	Vertical (kg)	thrust (N)	(mm)	(mm)
RCS2-TFA5N-I-60-10-①-T2-②-③			10	5	1.5	89		l
RCS2-TFA5N-I-60-5-①-T2-②-③	60	Ball screw	5	10	3	178	±0.02	50 75

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

■ Str	oke and	Maximum S	speed
	Chualia		

<u> </u>						
Stroke Lead	50 (mm)	75 (mm)				
10	280<230>	380<330>				
5	250<230>	250				
2.5	125					

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

①Stroke						
①Stroke (mm)	Standard price					
50	_					
75	_					

③ Options						
Name	Option code	See page	Standard price			
Brake	В	→ 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	К3	→ A-51	_			

② Cable Length						
Cable symbol	Standard Price					
P (1m)	_					
S (3m)	<u> </u>					
M (5m)	_					
X06 (6m) ~ X10 (10m)	<u> </u>					
X11 (11m) ~ X15 (15m)	_					
X16 (16m) ~ X20 (20m)	_					
R01 (1m) ~ R03 (3m)	_					
R04 (4m) ~ R05 (5m)	_					
R06 (6m) ~ R10 (10m)	_					
R11 (11m) ~ R15 (15m)	_					
R16 (16m) ~ R20 (20m)	_					
	P (1m) S (3m) M (5m) X06 (6m) ~ X10 (10m) X11 (11m) ~ X15 (15m) X16 (16m) ~ X20 (20m) R01 (1m) ~ R03 (3m) R04 (4m) ~ R05 (5m) R06 (6m) ~ R10 (10m) R11 (11m) ~ R15 (15m)					

* See page A-59 for cables for maintenance.

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			

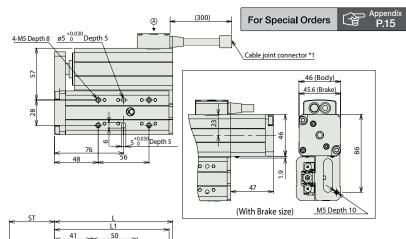
(*) Based on 5,000km of traveling life

355 RCS2-TFA5N

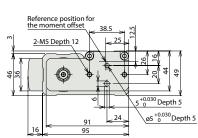
Dimensional Drawings

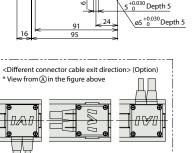
(*1) Connect the motor-encoder integrated cable here. (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.

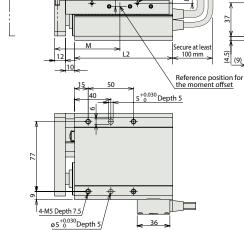
> ST: Stroke ME: Mechanical End



2-M4 Depth 4







*Brake-equipped models are heavier by 0.26kg. ■ Dimensions and Weight by Stroke Stroke 75 155 151 130 126 I 1 108 133 L2

(6.5)

46.5

89 105.5 Weight (kg)

3-M5 Depth 10

(6.5)

Applicable Controllers

Model number: K1 Model number: K2 Model number: K3 (Exits from the left) (Exits from the front) (Exits from the right)

View from (A) in the figure above

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

Home/

ME

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Positioner Type			Up to 512 positioning points are supported	512 points				
Solenoid mode	F2	SCON CA COLNID 2 (2)	Can be operated with the same controls used for solenoid valves	7 points	Single- phase 100 VAC	218 VA max.	_	. 0640
Network mode		SCON-CA-60I-NP-2-①	Can be moved by direct numerical specification	768 points	Single-	*Varies depending on the		→ P643
Pulse-train input control mode			Can be controlled using pulse trains	(—)	200 VAC	controller. Refer to the operation	_	
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)	manual for details.	_	→ P685
Program control type 1 or 6 axes	Pilita	XSEL((1)-1-60I-N1-EEE-2-3	Program operation is supported Up to six axes can be operated	20,000 points			_	→ P695

*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.

IAI

RCS2-TFA5N **356**

Table/ Arm/ Flat Type





Standard

Controllers Integrated

> Rod Type

Mini

Standard

Integrated

Table, Arm, Flat Type

Gripper/ Rotary

> Linear Servo Type

> Cleanroom Type

Splash-Proof

> Pulse Motor

Servo Motor (24V)

Servo Motor (200V)

Linear Servo Motor



20 Specification Items Series Type — Encoder type — Motor type – Lead Stroke Applicable controller Cable length Options 20:20W Servo 10: 10mm 50: 50mm A1:ACON N: None P: 1m S: 3m M:5m See options below. 1: Incremental * Be sure to specify which side the 5: 5mm ASEL A: Absolute motor 200: 200mm (50mm pitch increments) *ASEL can only be used as the absolute A3:AMEC M:5m motor is to be mounted (MB/MR/ML) encoder. Simple absolute encoders are considered incremental. ASEP MSEP * See page Pre-47 for details on the model descriptions.

CE RoHS

Power-saving



Technical References



(Unit: mm/s)

(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 land constitute the series as the secretarian of O.C. This is the unper-

(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 ■ Stroke and Maximum Speed

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

 Stroke
 50~200

 Lead
 (every 50mm)

 10
 330

 5
 165

①Encoder Type/②Stroke						
	Standard price					
②Stroke (mm)	①Encoder Type					
©Stroke (IIIII)	Incremental	Absolute				
		Α				
50	_	_				
100	_	_				
150	_	_				

4	Ca	ble	Len	g	th

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

^{*} See page A-59 for cables for maintenance.

⑤ Options			
Name	Option code	See page	Standard price
Brake	В	→ 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

200



For Special Orders



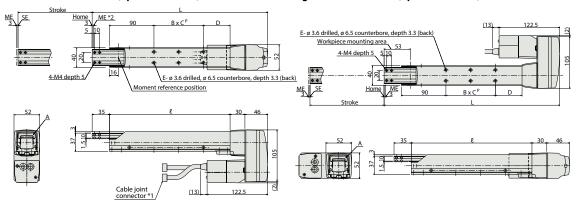
(*1) Connect the motor and encoder cables here. See page A-59 for details on cables.

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

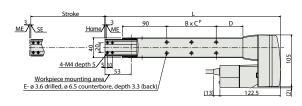
ME: Mechanical end SE: Stroke end

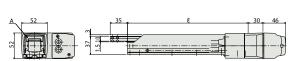
Bottom-mounted motor (option code: MB)

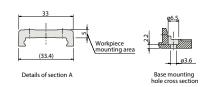
Right-mounted motor (option code: MR)



Left-mounted motor (option code: ML)







■ Dimensions and Weight by Stroke

		9	,	
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

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

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power- supply capacity	Standard price	Reference page
Solenoid Valve Type	W.	AMEC-C-20I()-()-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P537
Solenoid valve Type		ASEP-C-20I()-()-2-0	Simple controller operable with the same signal as a solenoid valve	3 points			_	→ P547
Solenoid valve multi-axis type PIO specification	line.	MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected					→ P563
Solenoid valve multi-axis type Network specification	1111	MSEP-C	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points				7 2503
Positioner type		ACON-C-20I()-()-2-0	Positioning is possible for up to 512	512 points		(Standard) 1.3A rated 4.4A max.	_	
Safety-Compliant Positioner Type		ACON-CG-20I(II)-(III)-2-0	points	312 points	DC24V	(Power-	_	
Pulse Train Input Type (Differential Line Driver)	Ó	ACON-PL-20I①	Pulse train input type with differential line driver support	(—)		saving) 1.3A rated 2.5A max.	_	→ P631
Pulse Train Input Type (Open Collector)	7	ACON-PO-20III-III-2-0	Pulse train input type with open collector support	(—)			_	
Serial Communication Type		ACON-SE-20I①-N-0-0	Dedicated Serial Communication	64 points			_	
Program Control Type		ASEL-CS-1-20①①2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			_	→ P675

* This is for the single-axis ASEL.

* (i) indicates encoder type (l: incremental, A: absolute)

* (ii) indicates l/O type (NP/PN).

IAI

RCA-A4R 358

Slider Type

Mini

Standar

Controllers

Rod Type

Mini

Controllers Integrated

Table/ Arm/ Tat Type

Mini

Standard

Gripper/ Rotary Type

Linear Servo Type

Cleanroom Type

Splash-Proof Type

Pulse Motor

Servo Motor

> ervo otor 00V)

_inear Servo Motor

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





Controllers Integrated

> Rod Type

Mini

Standard

Table

Mini

Gripper/ Rotary

> Linear Servo Type

> Cleanroom Type

Splash-Proof Type

> Pulse Motor

Servo Motor (24V)

Servo Motor (200V)

Linear Servo Motor



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

20 Specification Items Series Type — Encoder type – Motor type — Lead Stroke Applicable controller Cable length — Options 20: 20W Servo 12: 12mm 50: 50mm A1:ACON See options below.

* Be sure to specify which side the N: None I: Incremental P: 1m S: 3m 6: 6mm ASEL motor A: Absolute 200: 200mm (50mm pitch increments) *ASEL can only be used as the absolute A3:AMEC M:5m motor is to

X□□: Custom length be mounted

R□□: Robot cable (MB/MR/ML) encoder. Simple absolute encoders are considered incremental. ASEP MSEP * See page Pre-47 for details on the model descriptions.

CE RoHS

Power-saving



Technical References





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

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

	①Encoder Type/②Stroke					
		Standard price				
@Stroke (mm)	①Encoder Type					
	Incremental	Absolute				
			Α			
	50	_	_			
	100	_	_			
	150	_	_			
	200	_	_			

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

^{*} See page A-59 for cables for maintenance.

4 Cable Length

⑤ Options			
Name	Option code	See page	Standard price
Brake	В	→ 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



For Special Orders



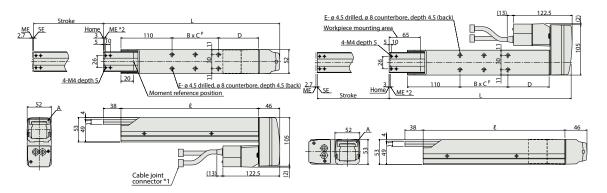
(*1) Connect the motor and encoder cables here. See page A-59 for details on cables.

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

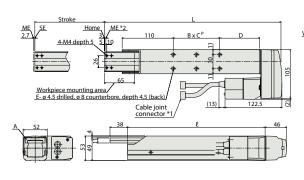
ME: Mechanical end SE: Stroke end

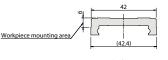
Bottom-mounted motor (option code: MB)

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	Referenc page
Calanaid Valua Tuna	W	AMEC-C-20I()-()-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P537
Solenoid Valve Type	1	ASEP-C-20I()-()-2-0	Simple controller operable with the same signal as a solenoid valve	3 points			_	→ P547
olenoid valve multi-axis type PIO specification		MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected		DC24V	(Standard) 1.3A rated 4.4A max. (Power- saving) 1.3A rated 2.5A max.		→ P563
olenoid valve multi-axis type Network specification		MSEP-C	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points				→ P303
Positioner type	£	ACON-C-20I①	Positioning is possible for up to 512 points	512 points			_	
Safety-Compliant Positioner Type		ACON-CG-20I - -2-0					_	
Pulse Train Input Type (Differential Line Driver)	Ó	ACON-PL-20I()-()-2-0	Pulse train input type with differential line driver support	()			_	→ P631
Pulse Train Input Type (Open Collector)	e	ACON-PO-20I (II)-(III)-2-0	Pulse train input type with open collector support	(—)			_	
Serial Communication Type		ACON-SE-20I ₁ -N-0-0	Dedicated Serial Communication	64 points			_	
Program Control Type		ASEL-CS-1-20①①2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			_	→ P67

* This is for the single-axis ASEL.

* ① indicates encoder type (I: incremental, A: absolute)

* ② indicates number of axes (1 to 8).

IAI

RCA-A5R **360**



Mini

Outside

Controlle

Rod Type

Mini

Integrated

able/ rm/ lat Type

Mini

Standard

Gripper/ Rotary Type

_inear Servo Type

Cleanroom Type

Splash-Proof Type

> Pulse Motor

Servo Motor

> ervo Motor 200V)

Linear Servo Motor

^{*} Enter the code "LA" in ① when the power-saving option is specified.
* ② indicates field network specification symbol.





Standard

Controllers

Rod Type

Mini

Standard

Table

Mini

Standard

Gripper/ Rotary Type

> Linear Servo Type

Cleanroom Type

Splash Proo Type

> Pulse Motor

> > Servo Motor (24V)

Servo Motor (200V)

Linear Servo Motor

RCA-A6R

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

RCA 30 A6R Specification Items Series Type — Encoder type — Motor type — Lead Stroke Applicable controller Cable length Options 30: 30W Servo 12: 12mm 50: 50mm A1:ACON I: Incremental See options below. N: None P: 1m S: 3m * Be sure to specify which side the 6: 6mm ASEL A: Absolute motor 200: 200mm (50mm pitch increments) *ASEL can only be used as the absolute A3:AMEC M:5m motor is to X□□: Custom length be mounted encoder. Simple absolute encoders are considered incremental. ASEP MSEP * See page Pre-47 for details on the model descriptions R□□: Robot cable (MB/MR/ML)

C E RoHS

Power-saving



Technical References



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 Stroke and Maximum Speed Motor Lead Max. Load Capacity Rated Stroke Stroke 50~200

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

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

	①Encoder Type/②Stroke							
		Standard price						
@Stroke (mm)	①Encoder Type							
	Incremental	Absolute						
		Α						
50 100		_	_					
		_	_					
	150	_	_					
	200	_	_					

④ Cab	le Length
Туј	oe

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

^{*} See page A-59 for cables for maintenance.

(5) Options Option code See page Standard price → 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-A6F



For Special Orders

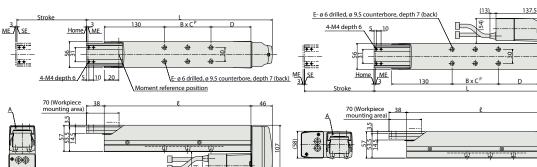


 (*1) Connect the motor and encoder cables here. See page A-59 for details on cables.
 (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects. ME : Mechanical end

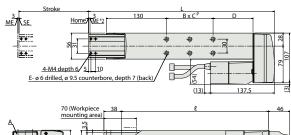
SE : Stroke end

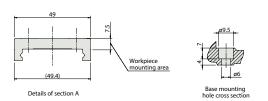
Bottom-mounted motor (option code: MB)

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

æ	50	100	150	200	Note: The 50mm stroke model is
	300	350	400	450	only available with a right- or
	216	266	316	366	left-mounted motor. Please
Р	1×30	1×50	2×50	2×50	note that there is no 50mm
	56	86	86	136	stroke configuration for the
	4	4	6	6	standard model.
(ka)	3.0	3.3	3.6	3.9	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
	100		Easy-to-use controller, even for					

Name	External view	Model number	Features	of positioning points	Input power	supply capacity	Standard price	Reference page	
Solenoid Valve Type		AMEC-C-30I()-()-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P537	
Solenoid valve Type		ASEP-C-30I()-()-2-0	Simple controller operable with the same signal as a solenoid valve	3 points			_	→ P547	
Solenoid valve multi-axis type PIO specification	A COLUMN	MSEP-C-10-~-10-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected		DC24V			→ P563	
Solenoid valve multi-axis type Network specification		MSEP-C	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points					7 1303
Positioner type	-	ACON-C-30I (II)-(III)-2-0	Positioning is possible for up to 512	512 points (—)		(Standard) 1.3A rated 4.4A max.	_		
Safety-Compliant Positioner Type		ACON-CG-30I(II)-(III)-2-0	points			(Power-	_		
Pulse Train Input Type (Differential Line Driver)	Ó	ACON-PL-30I()-()-2-0	Pulse train input type with differential line driver support			saving) 1.3A rated 2.2A max.	_	→ P631	
Pulse Train Input Type (Open Collector)	6	ACON-PO-30I (II)-(III)-2-0	Pulse train input type with open collector support				_		
Serial Communication Type		ACON-SE-30I①-N-0-0	Dedicated Serial Communication	64 points			_		
Program Control Type		ASEL-CS-1-30①①2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			_	→ P675	

* This is for the single-axis ASEL.
* (ii) indicates I/O type (NP/PN). * ① indicates encoder type (I: incremental, A: absolute)
* ℚ indicates number of axes (1 to 8). * Enter the code "LA" in ① when the power-saving option is specified.
* ② indicates field network specification symbol.

IAI

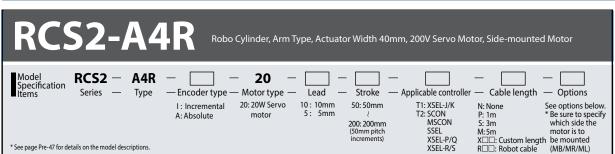
RCA-A6R 362



Rod Type Mini Standard Controllers Integrated

CE

RoHS





Technical References

(Unit: mm/s)

- (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 Specification ■ Leads and Payloads ■ Stroke and Maximum Speed Motor output (W) Lead (mm) Stroke 50~200 (every 50mm) Max. Load Capacity Rated Stroke Model number thrust (N) (mm) Horizontal (kg) Vertical (kg) 330 RCS2-A4R-①-20-10-②-③-④-B-⑤ 10 10 2.5 39.2 50~200 20 (every 50mm) RCS2-A4R-1-20-5-2-3-4-B-5 5 165 5 4.5 78.4

①Encoder Type/②Stroke				
@Stroke (mm)	Standard price			
	①Encoder Type			
	Incremental	Absolute		
		Α		
50		_		
100	_	_		
150				
200	_	_		

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

(4) Cable Length		
Туре	Cable symbol	Standard Price
	P (1m)	_
Standard	S (3m)	_
	M (5m)	_
	X06 (6m) ~ X10 (10m)	_
Special length	X11 (11m) ~ X15 (15m)	_
, ,	X16 (16m) ~ X20 (20m)	_
	R01 (1m) ~ R03 (3m)	_
	R04 (4m) ~ R05 (5m)	_
Robot Cable	R06 (6m) ~ R10 (10m)	_
	R11 (11m) ~ R15 (15m)	_
	R16 (16m) ~ R20 (20m)	_
See page A-59 for cables	for maintenance	

(5) Options			
Name	Option code	See page	Standard price
Brake	В	→ 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







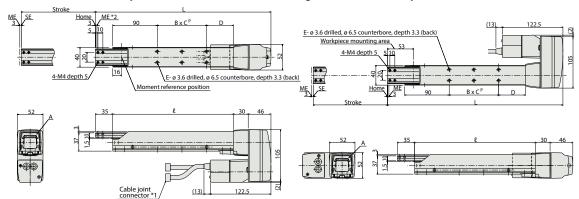


(*1) Connect the motor and encoder cables here. See page A-59 for details on cables.

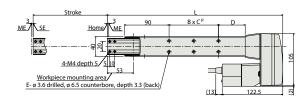
(*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects. ME : Mechanical end

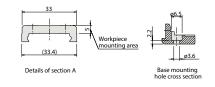
Bottom-mounted motor (option code: MB)

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

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			Up to 512 positioning points are supported.	512 points					
Solenoid valve mode	H	SCON-CA-20①-NP-2-⑪	Actuators can be operated through the same control used for solenoid valves.	7 points		106 VA max.	_	→ P643	
Field network type		Score Ch 20() Ni 2 (j)	Movement by numerical specification is supported.	768 points	Single-phase 100VAC	*Power supply capacity will	_	71043	
Pulse-train input control type			Dedicated pulse-train input type	(-)	Single-phase 200VAC 3-phase	vary depending on the controller, so	_		
Positioner multi-axis, network type	問報	MSCON-C-1-20①-⑦-0-⑪	Up to 6 axes can be operated. Movement by numerical specification is supported.	256 points	200VAC (XSEL-P/Q/R/S ONLY)	200VAC (XSEL-P/Q/R/S the ins 0NLY) manua	200VAC please refer to (XSEL-P/Q/R/S the instruction	_	→ P655
Program control type, 1 to 2 axes		SSEL-CS-1-20①-NP-2-⑪	Program operation is supported. Up to 2 axes can be operated.	20000 points		details.	_	→ P685	
Program control type, 1 to 8 axes	emea	XSEL	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.

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

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

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

* ⊕ indicates field network specification symbol.

IAI

RCS2-A4R **364**

C € RoHS



Controllers Integrated

> Rod Type

Mini

Controllers

Table Arm Flat Type

Mini

Gripper/ Rotary

> Linear Servo Type

Cleanroom Type

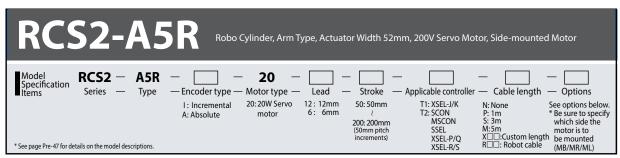
Splash-Proof Type

> Pulse Motor

Servo Motor (24V)

Servo Motor (200V)

Linear Servo Motor



*CE compliance is optional.

Technical References Appendix P.5



- (1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed. Use the actuator specification table below to check the maximum speed at the stroke you desire.
- (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 Stroke and Maximum Speed Model number Motor Lead Max. Load Capacity Rated Stroke Stroke (every 50mm) Output (W) (mm) Lead (mm) Lead (every 50mm)

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

| Stroke | 50~200 | (every 50mm) | 12 | 400 | 6 | 200 | (Unit: mm/s)

 $\textbf{Code explanation} \ \ \textcircled{\tiny{\textcircled{3}}} \ \textbf{Encoder} \ \ \textcircled{\tiny{\textcircled{3}}} \ \textbf{Stroke} \ \ \textcircled{\tiny{\textcircled{3}}} \ \textbf{Applicable Controller} \ \ \textcircled{\tiny{\textcircled{4}}} \ \textbf{Cable Length} \ \ \textcircled{\tiny{\textcircled{5}}} \ \textbf{Options} \ \ ^* \textbf{See page A-71 for details on push motion}.$

①Encoder Type/②Stroke				
	Standard price			
②Stroke (mm)	①Encoder Type			
	Incremental	Absolute		
	I	Α		
50	_	_		
100				
150				
200	_	_		

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

^{*} See page A-59 for cables for maintenance.

4 Cable Length

(5) Options			
Name	Option code	See page	Standard price
Brake	В	→ 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	
ltem	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-A5F

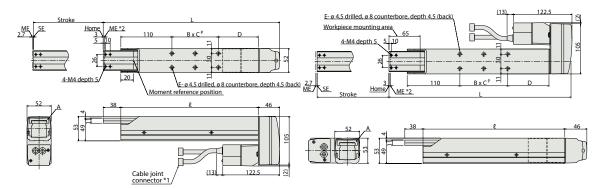


(*1) Connect the motor and encoder cables here. See page A-59 for details on cables.
(*2) After homing, the slider moves to the ME, therefore, please watch for any interference

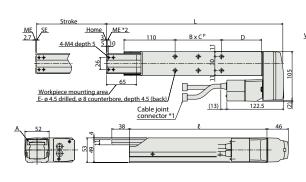
ME: Mechanical end SE: Stroke end

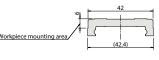
Bottom-mounted motor (option code: MB)

Right-mounted motor (option code: MR)



Left-mounted motor (option code: ML)







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

del is ightis no ration

Dimensions	_	•		
Ctualia	 100	150	200	

ke	50	100	150	200	Note: The 50mm stroke mod
	280	330	380	430	only available with a ri
	196	246	296	346	or left-mounted motor
C ^p	1×30	1×50	2×50	2×50	Please note that there
1	56	86	86	136	50mm stroke configura
	4	4	6	6	for the standard mode
t (kg)	2.2	2.4	2.6	2.8	for the standard mode

	3 A	pplica	able	Con	troll	ers
--	-----	--------	------	-----	-------	-----

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

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power supply capacity	Standard price	Reference page
Positioner mode			Up to 512 positioning points are supported.	512 points				
Solenoid valve mode	H	SCON-CA-20①-NP-2-⑪	Actuators can be operated through the same control used for solenoid valves.	7 points		106 VA max.	_	→ P643
Field network type		Score Ch 20() Ni 2 (j)	Movement by numerical specification is supported.	768 points	Single-phase 100VAC	*Power supply capacity will	_	71043
Pulse-train input control type			Dedicated pulse-train input type	(-)	Single-phase 200VAC 3-phase	vary depending on the controller, so	_	
Positioner multi-axis, network type	開報	MSCON-C-1-20①-⑦-0-⑪	Up to 6 axes can be operated. Movement by numerical specification is supported.	256 points	200VAC please refer to the instruction manual for	the instruction	_	→ P655
Program control type, 1 to 2 axes		SSEL-CS-1-20①-NP-2-⑪	Program operation is supported. Up to 2 axes can be operated.	20000 points		uctaiis.	_	→ P685
Program control type, 1 to 8 axes	Pilita	XSEL	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).

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

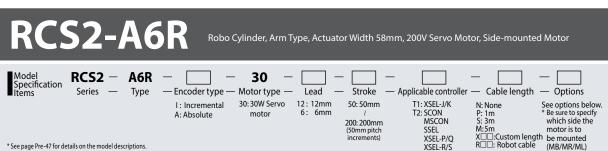
* ② indicates the encoder type (1: 100 V / 2: Single-phase 200V / 3: Three-phase 200V).

IAI

RCS2-A5R **366**

CE RoHS *CE compliance is optional.







Technical References

- (1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed. Use the actuator specification table below to check the maximum speed at the stroke you desire.
- (2) 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 Specification ■ Leads and Payloads ■ Stroke and Maximum Speed Motor output (W) Lead (mm) Stroke Max. Load Capacity Rated Stroke Model number thrust (N) (mm) Horizontal (kg) Vertical (kg) RCS2-A6R-①-30-12-②-③-④-B-⑤ 12 12 48.4 50~200 30 RCS2-A6R-1-30-6-2-3-4-B-5 6

50~200 (every 50mm) 400 6 200 (Unit: mm/s)

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

①Encoder Type/②Stroke					
	Standard price				
@Stroke (mm)	①Encoder Type				
	Incremental	Absolute			
	I	Α			
50	_	_			
100	_	_			
150	_	_			
200	_	_			

(4)	Cab	le	Leng	gth

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

^{*} See page A-59 for cables for maintenance.

Actuator Specifications

© Options						
Name	Option code	See page	Standard price			
Brake	В	→ 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	_			

ltem	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

Directions of allowable load moments





Ambient operating temperature, humidity 0 to 40°C, 85% RH or less (Non-condensing)



367 RCS2-A6R

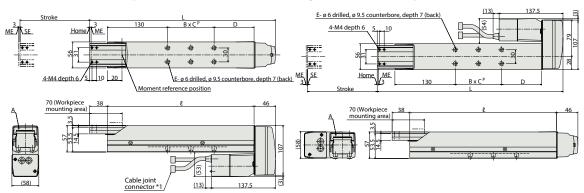


(*1) Connect the motor and encoder cables here. See page A-59 for details on cables.
(*2) After homing, the slider moves to the ME, therefore, please watch for any interference

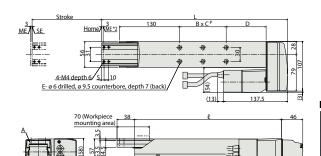
with surrounding objects. ME: Mechanical end

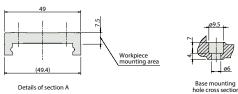
Bottom-mounted motor (option code: MB)

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

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

1	3 <i>I</i>	\ppl	ical	ole	Con	trol	lers
---	------------	------	------	-----	-----	------	------

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

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power supply capacity	Standard price	Reference page
Positioner mode			Up to 512 positioning points are supported.	512 points				
Solenoid valve mode	H	SCON-CA-30(T)-NP-2-(II)	Actuators can be operated through the same control used for solenoid valves.	7 points	Single-phase 100VAC Single-phase 200VAC 3-phase 200VAC (XSEL-P/Q/R/S 0NLY)	*Power supply capacity will		→ P643
Field network type		MSCON-C-1-30①	Movement by numerical specification is supported.	768 points			_	7 7 043
Pulse-train input control type			Dedicated pulse-train input type	(-)			_	
Positioner multi-axis, network type	1860		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-1-30①-NP-2-⑪	Program operation is supported. Up to 2 axes can be operated.	20000 points			_	→ P685
Program control type, 1 to 8 axes	Pilita	XSEL-(1)-1-30(1)-N1-EEE-2-(1)	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.

*(iii) indicates the power-supply voltage type (1: 100V / 2: Single-phase 200V).
*(iiii) indicates the XSEL type (J/K/P/Q/R/S).
*(iiii) indicates the power-supply voltage type (1: 100 V / 2: Single-phase 200V).
*(iiii) indicates the XSEL type (J/K/P/Q/R/S).
*(iiii) indicates the power-supply voltage type (1: 100 V / 2: Single-phase 200V).
*(iii) indicates the XSEL type (J/K/P/Q/R/S).

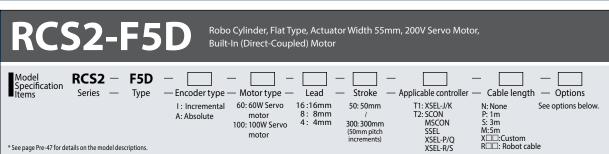
- ① indicates the encoder type (I: Incremental / A: Absolute).

RCS2-A6R **368**

IAI

Sold & Serviced By: **ELECTROMATE** Toll Free Phone (877) SERV098





C E RoHS

*CE compliance is optional.



(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.

Technical References

> > (Unit: mm/s)

(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 ■ Stroke and Maximum Spec								Maximum Speed
Model number	Motor output (W)	Lead (mm)	Max. Load Horizontal (kg)	Capacity Vertical (kg)	Rated thrust (N)	Stroke (mm)	Stroke Lead	50~300 (every 50mm)
RCS2-F5D-①-60-16-②-③-④-⑤		16	See	2.0	63.8	50~300	16	800
RCS2-F5D-①-60-8-②-③-④-⑤	60	8		5.0	127.5		8	400
RCS2-F5D-①-60-4-②-③-④-⑤		4		11.5	255.1		4	200
RCS2-F5D-①-100-16-②-③-④-⑤		16	Page A-120	3.5	105.8	(every 50mm)		
RCS2-F5D-①-100-8-②-③-④-⑤	100	8		9.0	212.7			
RCS2-F5D-①-100-4-②-③-④-⑤		4		18.0	424.3			
Code explanation ① Encoder ② Stroke	3 Applica	ble Cont	roller 倒	Cable Ler	ngth 🗓 (Options *See	page A-71 for details o	n push motion.

①Encoder Type/②Stroke								
	Standard price							
	①Encoder Type							
@Stroke (mm)	Increr	nental	Absolute					
	Motor Output (W)		Motor Output (W)					
	60W	100W	60W	100W				
50	_	_	_	_				
100	_	_	_	_				
150		_		_				
200	_	_	-	_				
250	_	_		_				

⑤ Options			
Name	Option code	See page	Standard price
Brake	В	→ A-42	_
CE compliance	CE	→ A-42	_
Non-motor end specification	NM	→ A-52	1

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

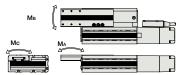
R11 (11m) ~ R15 (15m)

R16 (16m) ~ R20 (20m) * See page A-59 for cables for maintenance.

Actuator Specifications							
ltem	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)						

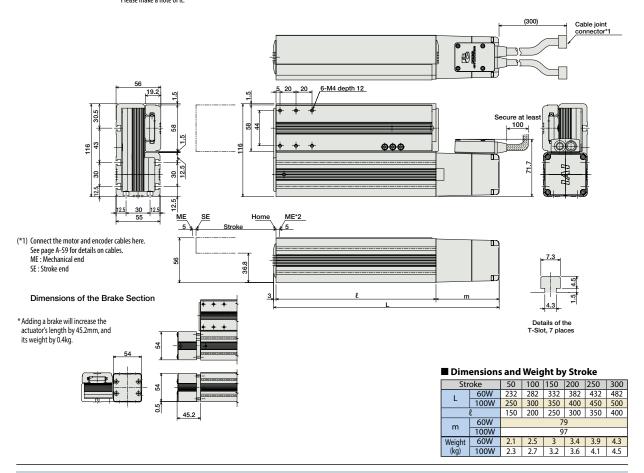
(*) Based on 5,000km of traveling life

Directions of allowable load moments



For Special Orders

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



3A	pplicabl	e Contro	llers
----	----------	----------	-------

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power supply capacity	Standard price	Reference page
Positioner mode			Up to 512 positioning points are supported.	512 points	Single-phase 100VAC Single-phase 200VAC 3-phase 200VAC (XSEL-P/Q/R/S 0NLY)			
Solenoid valve mode		SCON-CA-60①-NP-2-⑪	Actuators can be operated through the same control used for solenoid valves.	7 points		*Power supply capacity will	_	→ P643
Field network type		SCON-CA-100①-NP-2-⑪	Movement by numerical specification is supported.	768 points			Refer to P644	7043
Pulse-train input control type			Dedicated pulse-train input type	(-)			_	
Positioner multi-axis, network type	1886	MSCON-C-1-100(1)-(V)-0-(II)	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	1	SSEL-CS-1-60①-NP-2-⑪ SSEL-CS-1-100①-NP-2-⑪	Program operation is supported. Up to 2 axes can be operated.	20000 points			_	→ P685
Program control type, 1 to 8 axes	Pilled	XSEL-@-1-60①-N1-EEE-2-® XSEL-@-1-100①-N1-EEE-2-®	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.

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

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

* ⊕ indicates the mecoder type (I: 100 V / 2: Single-phase 200V / 3: Three-phase 200V).

IAI

RCS2-F5D **370**