

Table Type / Arm Type Flat Type

RCP3 RCA2 RCA RCS2



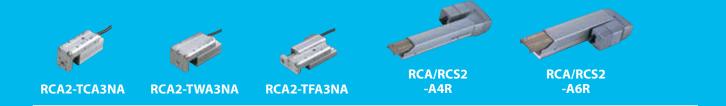




Table Type / Arm Type / Flat Type

	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
	Willin Table Type	Short Length Compact Model	36mm Width	RCA2-TCA3NA RCA2-TCA4NA	325
		Short-Length Wide Model	50mm Width	RCA2-TCA4NA RCA2-TWA3NA	327
		Short-Length Wide Model	58mm Width	RCA2-TWA3NA RCA2-TWA4NA	327
DCAS		Short-Length Flat Model	61mm Width		331
RCA2		Short-Length Flat Model		RCA2-TFA3NA	333
series		Inline Motor	71mm Width	RCA2-TFA4NA	335
24V		Illille Motor	40mm Width	RCA2-TA4C	
Servo	Table Type	Inline Motor	55mm Width	RCA2-TA5C	337
Motor	Table Type	mine Motor	65mm Width	RCA2-TA6C	339
Туре	Mini Table Type	Side-Mounted Motor	75mm Width	RCA2-TA7C	341
		Side-Mounted Motor	40mm Width	RCA2-TA4R	343
	Table Type	Side-Mounted Motor	55mm Width	RCA2-TA5R	345
			65mm Width	RCA2-TA6R	347
			75mm Width	RCA2-TA7R	349
RCA2	Arm Type		40mm Width	RCA-A4R	357
			52mm Width	RCA-A5R	359
series			58mm Width	RCA-A6R	361
24V Servo					
Motor Type					
	Mini Table Type	Short-Length Compact Model	48mm Width	DCC2 TCAEN	351
	Milli Table Type	Short-Length Wide Model		RCS2-TCA5N	
RCS2		Short-Length Flat Model	80mm Width	RCS2-TWA5N	353
series	Arm Type	Short-Length Mat Model	95mm Width	RCS2-TFA5N	355
	Ailii Type		40mm Width	RCS2-A4R	363
200V Servo Motor Type			52mm Width	RCS2-A5R	365
motor type	Elat Typo		58mm Width	RCS2-A6R	367
	Flat Type		55mm Width	RCS2-F5D	369

Arm Flat Type



Model Specification Items

RCP3 - TA3C -

— Encoder type — Motor type I: Incremental

encoder is also

considered type "I".

20P 20P: Pulse motor, The Simple absolute 20 ☐ size

6:6mm 4:4mm 2 · 2mm

Stroke 20: 20mm 100: 100mm

(10mm pitch increments)

P1: PCON-PL/PO/SE **PSEL** P3: PCON-CA PMEC/PSEP

MSEP

Applicable controller — Cable length

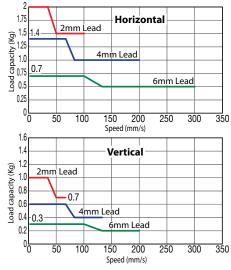
N: None See Options below. P: 1m S: 3m

M:5m X□□: Custom Length



■ 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 load capacity decreases as the speed increases.

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

■ Stroke and Maximum Speed (Unit: mm/s)						
Lea	Stroke	20~100 (mm)				
W	6	300<200>				
Ball scre	4	200<133>				
	2	100<67>				
		Stroke Lead 6 4 2	Stroke 20~100 (mm) 6 300<200> 4 200<133>			

	D	S	tı	ro	k	e	
--	---	---	----	----	---	---	--

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 (Robot Cables)	P (1m)	_
	S (3m)	_
	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
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

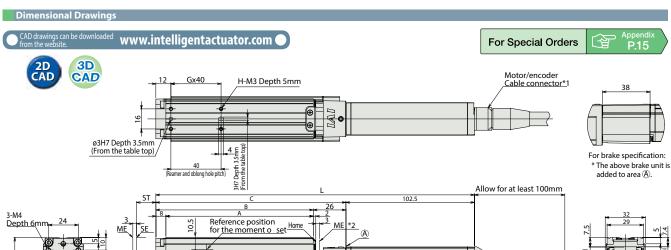
*Brake-equipped models are heavier by 0.1kg.

6

SE: Stroke end

0.6 | 0.6 | 0.6 | 0.7 | 0.7

Table/ Flat Type



18.5

50 (Reamer and oblong hole pitch) J-M3 Depth 5mm 3H7[(from the bi <u>o</u> 0 0 0 0 ø3H7 Depth 3.5mm (From the bottom of the base)

■ Dimensions and Weight by Stroke

4 4

6

0.5

Weight (kg)

6

0.5 0.5

6

20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 Stroke 254 264 274 284 294 304 Without brake 224 234 244 With brake 262 272 282 292 302 312 322 332 342
 97.5
 107.5
 117.5
 127.5
 137.5
 147.5
 157.7
 167.5

 105.5
 115.1
 125.5
 135.5
 145.5
 155.5
 165.5
 175.5

 131.5
 141.5
 151.5
 161.5
 171.5
 181.5
 191.5
 201.5
 87.5 95.5 121.5 131 91 101 111 121 141 151 161 171 1 1 2 2 2 1 1 2 28.5 38.5 48.5 58.5 18.5 28.5 38.5 48.5 58.5 1 2 6

4 6 6 6

6 8 8 8 8 8

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

② Applicable Controllers

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page				
Calcari IVII a Tara	1018	PMEC-C-20PI-①-2-⑪	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	_	→ P547				
Solenoid valve multi-axis type PIO specification	line.	MSEP-C-((1)-~-(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	iiii	MSEP-C-(11)-~-(1V)-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points			_					
Positioner type High-output specification	ii)	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				1	1	PCON-CA-20PI-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-20PI-®-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points	DC24V		_					
Pulse Train Input Type (Differential Line Driver)	Ö	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	_	→ P665				

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

Arm Flat Type



Model Specification Items

RCP3 - TA4C -

— Encoder type — Motor type -I: Incremental

encoder is also

considered type "I".

− 28P 28P: Pulse motor, The Simple absolute 28□ size

References

Lead 6:6mm 4:4mm 2:2mm

Stroke 20: 20mm 100: 100mm (10mm pitch increments)

Applicable controller -P1: PCON-PL/PO/SE **PSEL**

P3: PCON-CA PMEC/PSEP Cable length N: None P: 1m S: 3m

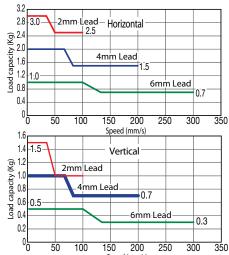
See Options below.

Options

M:5m X□□:Custom Length MSEP



■ 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

RCP3-TA4C-I-28P-2-①-②-③-④

■ Leads and Payloads

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

(Note	1) Please note	that the	maximum l	oad capacity d	lecreases as th	ne speed increases.	■ St	troke and	Maximum Speed
	Feed Screw	Lead (mm)	Max. Load Ca Horizontal (kg)	apacity (Note 1) Vertical (kg)	Rated thrust (N)	Stroke (mm)	Lea	Stroke	20~100 (mm)
		6	~1	~0.5	25		rew	6	300
	Ball screw	4	~2	~1	37	20~100 (every 10mm)	S	4	200
		2	~3	~1.5	75		Ba	2	100

20~100 (mm) 300 6 4 200 2 100 (Unit: mm/s)

Speed (mm/s)

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

C+	امه	مما

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

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

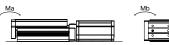
4 Options

Name	Option code	See page	Standard price
Brake	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	_

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: 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

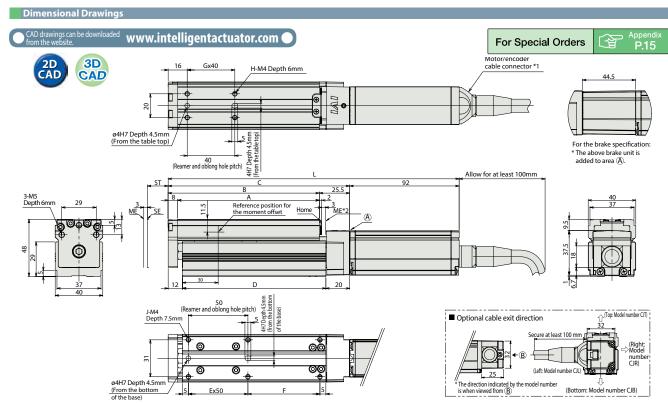




*Brake-equipped models

are heavier by 0.2kg.

Flat Type



(*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

Г	Stroke	20	30	40	50	60	70	80	90	100
Г	Without brake	214.5	224.5	234.5	244.5	254.5	264.5	274.5	284.5	294.5
ľ	With brake	259	269	279	289	299	309	319	329	339
	Α	89	99	109	119	129	139	149	159	169
Г	В	97	107	117	127	137	147	157	167	177
Г	С	122.5	132.5	142.5	152.5	162.5	172.5	182.5	192.5	202.5
Г	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
Г	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

■ Dimensions and Weight by Stroke

② A	pplica	ble (Cont	rollers	

an 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
		PMEC-C-28PI-①-2-⑪	Easy-to-use controller, even for beginners	positioning points	AC100V AC200V	Refer to P541	— price	→ P537
Solenoid Valve Type		PSEP-C-28PI-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	Acces 1	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	iiii	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-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	-	→ P607
Field network type High-output specification		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)	Ó	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	_	→ P623
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	_	→ P665

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

IAI

Arm Flat Typ

P3-TA5C

Model Specification Items RCP3 - TA5C ı 35P — Encoder type — Motor type 35P: Pulse motor, 10: 10mm I: Incremental

The Simple absolute 35□ size encoder is also considered type "I".

2.5: 2.5mm

25: 25mm 100: 100mm (25mm pitch increments)

Stroke

Applicable controller P1: PCON-PL/PO/SE **PSEL** P3: PCON-CA

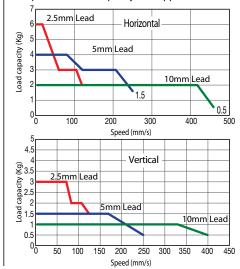
PMEC/PSEP MSEP

Cable length - Options N: None See Options below. P: 1m S: 3m

M:5m X□□:Custom Length

■ 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.



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.

Actuator Specifications

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

Lead (mm)	Max. Load Car Horizontal (kg)	Vertical (kg)	Rated thrust (N)	Stroke (mm)
10	~2	~1	34	
5	~4	~1.5	68	25~100 (every 25mm)
2.5	~6	~3	136	
	(mm) 10 5	(mm) Horizontal (kg) 10 ~2 5 ~4	(mm) Horizontal (kg) Vertical (kg) 10 ~2 ~1 5 ~4 ~1.5	(mm) Horizontal (kg) Vertical (kg) thrust (N) 10 ~2 ~1 34 5 ~4 ~1.5 68

■ Stroke and Maximum Speed (Unit: mm/s						
Stroke Lead	25~100 (every 25mm)					
10	465<400>					
5	250					
2.5	125					

* The values enclosed in < > apply to vertical settings. 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
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	_

③Cable Length

Type	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.

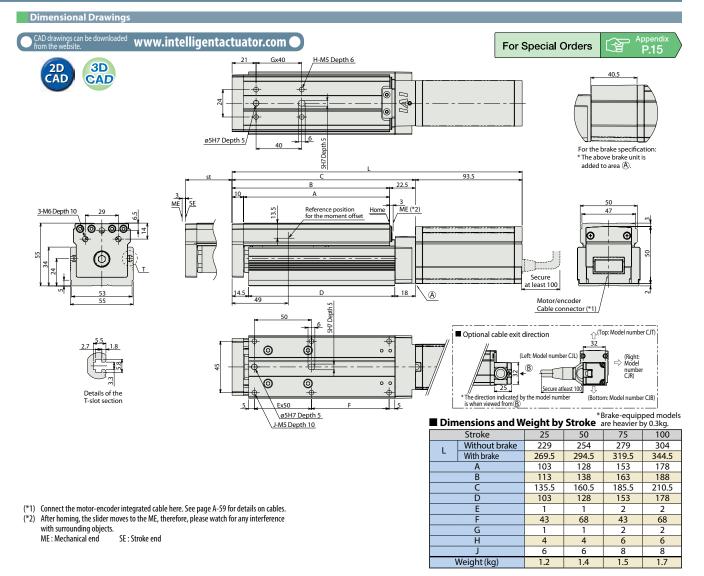
Actuator Specifications

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







Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Referen page			
Calamaid Valua Tura	100	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	land.	MSEP-C-(1)-~-(1)-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected		- DC24V	Refer to		, DE			
Solenoid valve multi-axis type Network specification	iiii	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	e i	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	_	→ P607		
Field network type High-output specification		PCON-CA-35PI	Equipped with a high-output driver Supporting 7 major field networks	768 points			DC24V	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	Ĩ	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-TA5C 308

Slider Type

Mini

Controller

Rod Type

Mini

Controllers

able/

Arm/ Flat Type

Mini

Standard

Gripper/ Rotary Type

Linear Servo Type

Cleanoom ype

plash Proof ype

> ulse lotor

ervo lotor (4V)

Servo Motor (200V)

> inear Servo Motor

Standard

Integrated

Rod Type

Min

Standard

Table

Arm, Flat Type

Min

Type

Clean-

Splash-Proo

> Pulse Moto

Servo Motor (24V)

Servo Motor (200V)

Linear Servo Motor

RCP3-TA6C

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

Model Specification Items | RCP3 - TA6C - I - 42P - Items | Series - Type - Encoder type - Motor type - Lead | I:Incremental | 42P: Pulse motor, 12:12mm

*The Simple absolute encoder is also considered type "I". 7, 12:12mm 6: 6mm 3: 3mm

42□ size

25: 25mm 150: 150mm (25mm pitch increments)

Stroke

Applicable controller
 P1: PCON-PL/PO/SE
 PSEL
 P3: PCON-CA
 PMEC/PSEP

MSEP

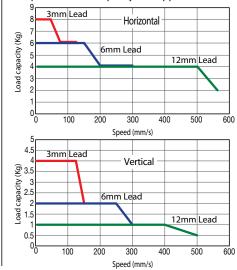
/SE N: None P: 1m S: 3m

Cable length — Options
N: None See Options below.
P: 1m

S: 3m M:5m X□□:Custom Length

■ 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.



C E RoHS

Technical References P.5

Notes on selection

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

Actuator Specifications

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

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

Stroke and	(Unit: mm/s)	
Stroke Lead	25~100 (every 25mm)	
12	560<500>	
6	300	
3	150	

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

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 (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

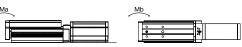
Туре	Cable symbol	Standard price
Standard (Robot Cables)	P (1m)	_
	S (3m)	_
	M (5m)	_
	X06 (6m) ~ X10 (10m)	_
Special length	X11 (11m) ~ X15 (15m)	_
	X16 (16m) ~ X20 (20m)	_

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

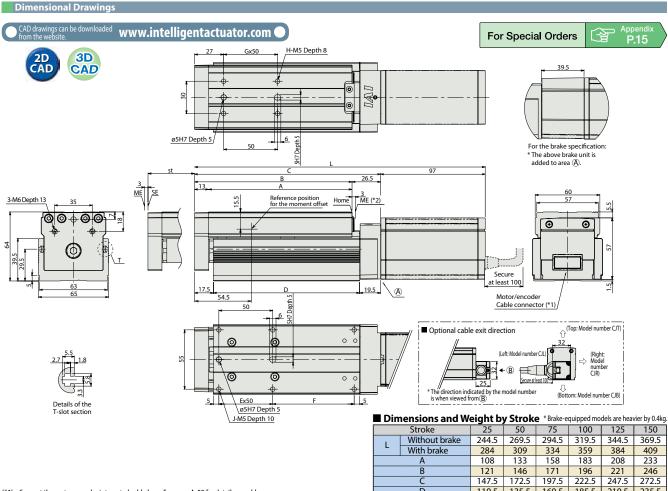
Actuator Specifications

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)

(*) 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

25	50	75	100	125	150		
244.5	269.5	294.5	319.5	344.5	369.5		
284	309	334	359	384	409		
108	133	158	183	208	233		
121	146	171	196	221	246		
147.5	172.5	197.5	222.5	247.5	272.5		
110.5	135.5	160.5	185.5	210.5	235.5		
1	1	2	2	3	3		
50.5	75.5	50.5	75.5	50.5	75.5		
1	1	2	2	3	3		
4	4	6	6	8	8		
6	6	8	8	10	10		
1.8	2	2.2	2.4	2.6	2.8		
	25 244.5 284 108 121 147.5 110.5 1 50.5 1 4	25 50 244.5 269.5 284 309 108 133 121 146 147.5 172.5 1 1 50.5 75.5 1 1 4 4 6 6	25 50 75	25 50 75 100 244.5 269.5 294.5 319.5 284 309 334 359 108 133 158 183 121 146 171 196 147.5 172.5 197.5 222.5 1 1 2 2 2 2 2 2 2 2	25 50 75 100 125 244.5 269.5 294.5 319.5 344.5 284 309 334 359 384 108 133 158 183 208 121 146 171 196 221 147.5 172.5 197.5 222.5 247.5 110.5 135.5 160.5 185.5 210.5 1 1 2 2 3 50.5 75.5 50.5 75.5 50.5 1 1 2 2 3 4 4 6 6 8 6 6 8 8 10		

(2)An	nlicabl	e Contro	illers
∠ AD		e contro	Helic

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

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page	
Solenoid Valve Type		PMEC-C-42PI-①-2-⑪	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-(1)-2-0	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	_	→ P563	
Positioner type High-output specification	áil .	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	(—)	DC34V	Refer to P618	_	→ P60
Field network type High-output specification		PCON-CA-42PI-ſℚ-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points	DC24V	DC24V		_	
Pulse Train Input Type (Differential Line Driver)	Ü	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	

Flat Type

Arm Flat Type

P3-TA7C

RCP3 — TA7C — Model Specification Items 42P

— Encoder type — Motor type 42P: Pulse motor, 12:12mm I: Incremental The Simple absolute 42□ size

6: 6mm 3: 3mm

Stroke 25: 25mm 200: 200mm (25mm pitch increments)

Applicable controller P1: PCON-PL/PO/SE **PSEL** P3: PCON-CA

PMEC/PSEP MSEP

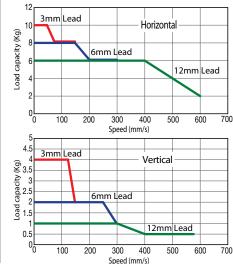
Cable length N: None P: 1m S: 3m

- Options See Options below.

M:5m X□□:Custom Length

■ 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.



RoHS



encoder is also

considered type "I".

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.

Actuator Specifications

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

(Note 1) hease note that the maximum load capacity decreases as the speed increases					
Model number	Lead (mm)	Max. Load Cap Horizontal (kg)	pacity (Note 1) Vertical (kg)	Rated thrust (N)	Stroke (mm)
RCP3-TA7C-I-42P-12-①-②-③-④	12	~6	~1	60	
RCP3-TA7C-I-42P-6-①-②-③-④	6	~8	~2	110	25~200 (every 25mm)
RCP3-TA7C-I-42P-3-①-②-③-④	3	~10	~4	189	

■ Stroke and Maximum Speed (Unit: mm/						
Stroke Lead	25~100 (every 25mm)					
12	600<580>					
6	300					
3	150					

* The values enclosed in < > apply to vertical settings. 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
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	_

③Cable Length

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

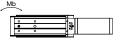
*The standard cable is the motor-encoder integrated robot cable. * See page A-59 for cables for maintenance.

Actuator Specifications

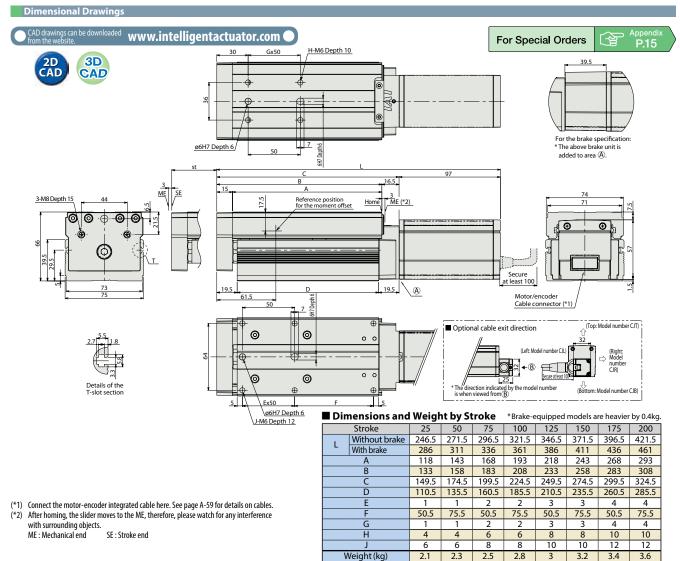
ltem	Description
Drive System	Ball screw, ø10mm, rolled C10
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, special alumite treated
Allowable static moment	Ma: 42.6 N·m, Mb: 60.8 N·m, Mc:123.2 N·m
Allowable dynamic moment (*)	Ma: 9.91 N·m, Mb: 14.13 N·m, Mc: 28.65 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) A	pplicable Contr	ollers
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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		
Colored Webs Torre	*	PMEC-C-42PI-①-2-⑪	Easy-to-use controller, even for beginners		AC100V AC200V	Refer to P541	_	→ P537		
Solenoid Valve Type	8	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		, DEC.		
Solenoid valve multi-axis type Network specification		MSEP-C	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points	points		_	→ P563		
Positioner type High-output specification	áil .	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	1	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-Ŵ-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	(—) 64 points		Refer to P628		→ P62		
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated Serial Communication				_			
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. * ⊕ indicates I/O type (NP/PN). * ⊕ indicates power supply voltage (1: 100V / 2: 100~240V).
 * ⊕ indicates number of axes (1 to 8). * ⊕ indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.

Arm Flat Type



Model Specification Items

RCP3 - TA3R -

The Simple absolute

considered type "I".

I: Incremental

encoder is also

20P — Encoder type — Motor type

20□ size

20P: Pulse motor, 6:6mm

4:4mm

2 · 2mm

Stroke 20: 20mm 100: 100mm (10mm pitch increments)

P1: PCON-PL/PO/SE **PSEL** P3: PCON-CA PMEC/PSEP

MSEP

Applicable controller

N: None P: 1m S: 3m M:5m X□□:Custom

Cable length

Length

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

- Options

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



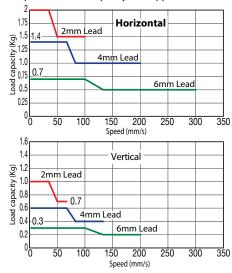
Technical References



(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).

■ Speed vs. Load Capacity

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



Actuator Specifications

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

Model number	Feed Screw	/ \	Max. Load Ca	apacity (Note 1) Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)	Le	Stroke
RCP3-TA3R-I-20P-6-①-②-③-④		6	~0.7	~0.3	15			W	6
RCP3-TA3R-I-20P-4-①-②-③-④	Ball screw	4	~1.4	~0.6	22	±0.02	20~100 (every 10mm)	all scre	4
RCP3-TA3R-I-20P-2-①-②-③-④		2	~2	~1	45			Bã	2
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 (Unit: mm/s) Stroke 20~100 (mm) Lead 300<200> 6 screw 4 200<133> Ball 2 100<67> The values enclosed in < > apply to vertical settings.

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

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

Option code	See page	Standard price
В	→ A-42	_
ML	→ A-52	_
MR	→ A-52	_
NM	→ A-52	_
	B ML MR	$\begin{array}{ccc} \textbf{B} & \rightarrow \text{A-42} \\ & \textbf{ML} & \rightarrow \text{A-52} \\ & \textbf{MR} & \rightarrow \text{A-52} \end{array}$

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

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

Actuator Specification

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

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

Directions of allowable load moments



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

100

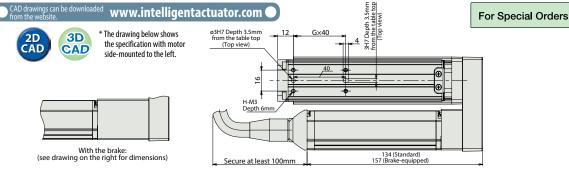
Dimensional Drawings

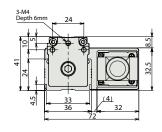


* The drawing below shows the specification with motor side-mounted to the left.

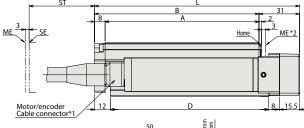


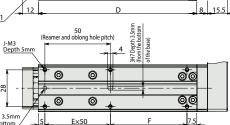
With the brake: (see drawing on the right for dimensions)





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





ø3H7 Depth 3.5mm (From the bottom of the base)

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

⊕

ST : Stroke ME: Mechanical end

SE: Stroke end

state equipped models are nearest systems.										
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	
Weiaht (ka)	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.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Colored Miles Torre	100	PMEC-C-20PI-①-2-⑪	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	3 points	Refer to P555	_	→ P54
Solenoid valve multi-axis type PIO specification		MSEP-C-((1)-~-(1)-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected			Refer to P572		, DEC
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			_	→ P563
Positioner type High-output specification	á	PCON-CA-20PI-①-2-0	Equipped with a high-output driver Positioner type based on PIO control	512 points		Refer to P618	_	
Pulse-train type High-output specification	1	PCON-CA-20PI-PL□-2-0	Equipped with a high-output driver Pulse-train input type	(—)	DC24V		_	→ P607
Field network type High-output specification		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)	Ü	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).
 * ② indicates number of axes (1 to 8). * ② indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.

Arm Flat Type



Model Specification Items

RCP3 - TA4R -

— Encoder type — Motor type

The Simple absolute

considered type "I".

I: Incremental

encoder is also

28P

28□ size

28P: Pulse motor, 6: 6mm 4mm

Stroke 2: 2mm

20: 20mm 100: 100mm

(10mm pitch increments)

Applicable controller P1: PCON-PL/PO/SE **PSEL**

P3: PCON-CA PMEC/PSEP **MSEP**

N: None P: 1m S: 3m M:5m X□□:Custom

Length

Cable length

- Options See Options below.
*Be sure to specify which side the motor is to be mounted (ML/MR).

 $C \in$



Technical References

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

~1.5

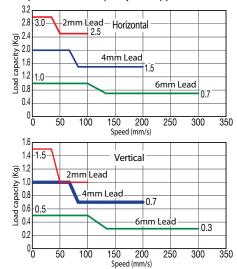




(1) The payload is the value when operated with acceleration of 0.3G (or 0.2G in the case of 2mm-lead and vertical usage). The upper limit for acceleration is 0.3G (or 0.2G in the case of 2mm-lead and vertical usage). (2) See page A-71 for details on push motion.

■ Speed vs. Load Capacity

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



Actuator Specifications

RCP3-TA4R-I-28P-2-10-20-30-4

■ Leads and Payloads

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

2

■ Stroke and Maximum Speed						
Lea	Stroke	20~100 (mm)				
N.	6	300				
Ball screw	4	200				
8	2	100				
On push motion (Unit: mm/s)						

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

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

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	_			
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

75

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

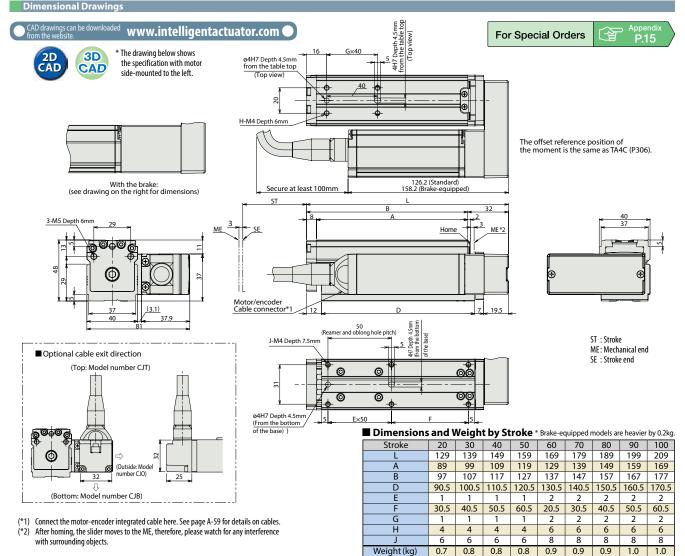
Actuator Specifications

ltem	Description
Drive System	Ball screw, ø6mm, rolled C10
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







② Applicable Controllers

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Referenc page
Calanaid Valua Tura		PMEC-C-28PI-①-2-⑪	Easy-to-use controller, even for beginners		AC100V AC200V	Refer to P541	_	→ P537
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	_	→ 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			Refer to		. D56
Solenoid valve multi-axis type Network specification		MSEP-C-((1)-~-((V)-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points		P572	_	→ P563
Positioner type High-output specification	ń	PCON-CA-28PI-①-2-0	Equipped with a high-output driver Positioner type based on PIO control	512 points	DC24V	Refer to P618	_	
Pulse-train type High-output specification	1	PCON-CA-28PI-PL□-2-0	Equipped with a high-output driver Pulse-train input type	(—)			_	→ P60
Field network type High-output specification		PCON-CA-28PI-®-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points			_	
Pulse Train Input Type (Differential Line Driver)		PCON-PL-28PI-①-2-0	Pulse train input type with differential line driver support	(—)		Refer to P628	_	
Pulse Train Input Type (Open Collector)		PCON-PO-28PI-①-2-0	Pulse train input type with open collector support	(—)			_	→ 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).
* ① indicates number of axes (1 to 8). * ② indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.

Arm Flat Typ

P3-TA5R

Model Specification Items

RCP3 - TA5R -

- 35P ı

— Encoder type — Motor type

35□ size

35P: Pulse motor, 10: 10mm 2.5: 2.5mm

Stroke 25: 25mm 100: 100mm

Applicable controller — **PSEL** P3: PCON-CA (25mm pitch increments)

MSEP

P1: PCON-PL/PO/SE PMEC/PSEP

N: None P: 1m S: 3m M:5m X□□:Custom Length

Cable length

See Options below. which side the motor is to be mounted (ML/MR).

- Options

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







I: Incremental

encoder is also

The Simple absolute

considered type "I".

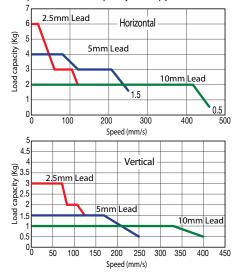
Technical References



- (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 Pavloads

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

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

①Stroke

4 Options

Cable exit direction (top)

Right-mounted motor

Cable exit direction (outside)

Cable exit direction (bottom)

Non-motor end specification

Left-mounted motor (standard)

Brake

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

Option code

В

CJT

CJO

CJB

ML

MR

NM

See page

→ A-42

→ A-42

→ A-42

→ A-42

→ A-52

→ A-52

→ A-52

Standard price

③Cable Lengt	ble Leng	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 is the motor-encoder integrated robot cable. * See page A-59 for cables for maintenance.

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℃, 85% RH or less (Non-condensing)

Directions of allowable load moments





Name

6

1.9

6

8

Н

Weight (kg)

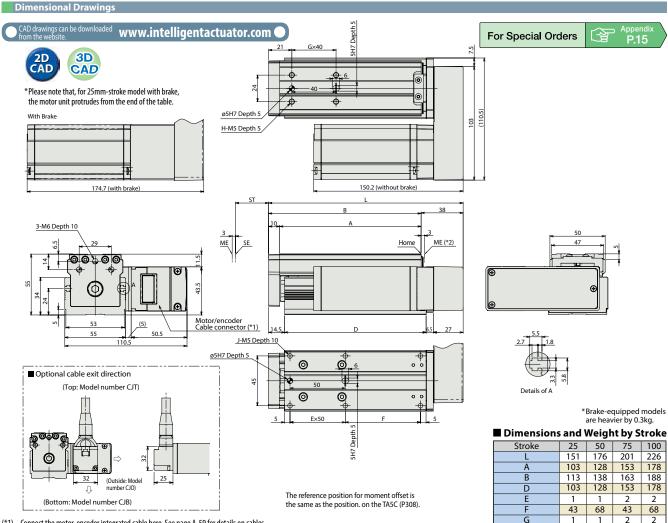
4

6 6

1.4

4

1.6 1.7



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

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

ME: Mechanical end SE: Stroke end

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		PMEC-C-35PI-①-2-⑪	Easy-to-use controller, even for beginners		AC100V AC200V	Refer to P541	_	→ P537
Soletiold 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	_	→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-(1)-~-(1)-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected			Refer to	_	→ P563
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	_	→ r503
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	1	PCON-CA-35PI-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-35PI-®-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points	DC24V		_	
Pulse Train Input Type (Differential Line Driver)	D	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	_	→ P623
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	_	→ P665

* indicates number of axes (1 to 8). * indicates field network specification symbol. * indicates number of axes (1 to 8). * indicates field network specification symbol. * indicates number of axes (1 to 8). * indicates field network specification symbol.

Arm Flat Typ

P3-TA6R

Model Specification Items

RCP3 - TA6R -

— Encoder type — Motor type

The Simple absolute

considered type "I".

I: Incremental

encoder is also

— 42P

42□ size

42P: Pulse motor,

12: 12mm 6: 6mm 3: 3mm Stroke 25: 25mm 150: 150mm

(25mm pitch increments)

Applicable controller P1: PCON-PL/PO/SE **PSEL** P3: PCON-CA

PMEC/PSEP **MSEP**

N: None P: 1m S: 3m M:5m X□□:Custom Length

Cable length

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

- Options

CE RoHS

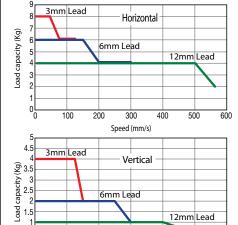


Technical References

- (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 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-TA6R-I-42P-12-①-②-③-④	12	~4	~1	60	
RCP3-TA6R-I-42P-6-①-②-③-④	6	~ 6	~2	110	25~150 (every 25mm)
RCP3-TA6R-I-42P-3-①-②-③-④	3	~8	~4	189	

Stroke and	(Unit: mm/s)	
Stroke Lead	25~150 (every 25mm)	
12	560<500>	
6	300	
3	150	

300

Speed (mm/s)

500

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

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	_

③Cable Length

<u> </u>		
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 is the motor-encoder integrated robot cable.

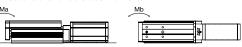
0.5

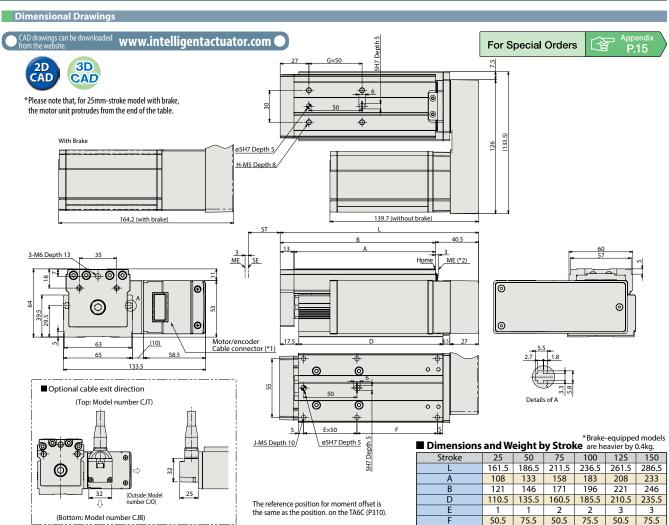
100

200

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)





G

Weight (kg)

1

2.1

2.3

2

2.5

2.7

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

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

ME: Mechanical end SE: Stroke end

②Applicable Controllers

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type	No.	PMEC-C-42PI-①-2-⑪	Easy-to-use controller, even for beginners		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	_	→ 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)-~-(10)-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 l	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	_	→ 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)	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	_	→ 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. * ⊕ indicates I/O type (NP/PN). * ⊕ indicates power supply voltage (1: 100V / 2: 100–240V). * ⊕ indicates number of axes (1 to 8). * ⊕ indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.

RCP3-TA6R 320

Table/ Flat Type

3

10

3.1

10

2.9

Arm Flat Type

P3-TA7R

Model Specification Items RCP3 - TA7R -- 42P ı — Туре — Encoder type — Motor type —

42P: Pulse motor, 12: 12mm I: Incremental The Simple absolute 42□ size encoder is also considered type "I".

Lead 6mm 3: 3mm

25: 25mm 200: 200mm (25mm pitch increments)

Stroke

Applicable controller P1: PCON-PL/PO/SE **PSEL** P3: PCON-CA PMEC/PSEP

MSEP

N: None P: 1m S: 3m M:5m X□□:Custom Length

Cable length — Options

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

 $C \in$ RoHS

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

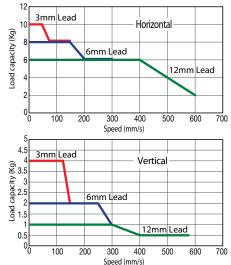


Technical References

- (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> 6 300 3 150

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

1		

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

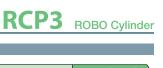
Туре	Cable symbol	Standard price
Standard	P (1m)	_
	S (3m)	_
Standard (Robot Cables) P (1m) 5 (3m) M (5m) M (5m) X06 (6m) ~ X10 (10 X11 (11m) ~ X15 (11	M (5m)	_
	X06 (6m) ~ X10 (10m)	_
Standard (Robot Cables) P (1m) S (3m) M (5m) M (5m) X06 (6m) ~ X10 (10m) X11 (11m) ~ X15 (15m)	_	
	X16 (16m) ~ X20 (20m)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

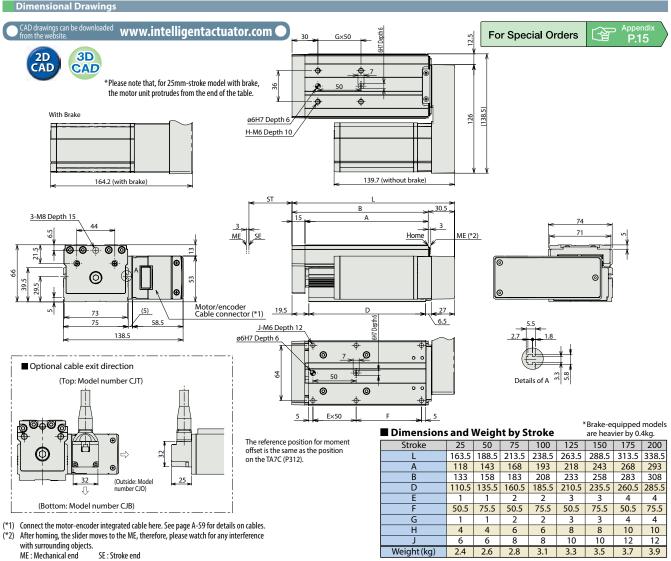
* The standard cable is the motor-encoder integrated robot cable. * See page A-59 for cables for maintenance.

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)







2 Applicable Controllers	

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

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type	**	PMEC-C-42PI-①-2-⑪	C-C-42PI-①-2-⑪ Easy-to-use controller, even for beginners		AC100V AC200V	Refer to P541	_	→ P53
solelloid valve Type		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-(11)-~-(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)-~-(10)-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points		P572	_	→ P50
Positioner type High-output specification	e e	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	_	→ 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)	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		→ 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. * ⊕ indicates I/O type (NP/PN). * ⊕ indicates power supply voltage (1: 100V / 2: 100~240V). * ⊕ indicates number of axes (1 to 8). * ⊕ indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.

Table/ Flat Type

CA2-TCA3NA Robo Cylinder, Mini Table Type, Short-Length Compact Type, Actuator Width 32mm, 24V Servo Motor, Ball Screw Specification/Lead Screw Specification

Model Specification Items

RCA2 — TCA3NA — Series — Type

10 – Encoder type — Motor type —

motor

I: Incremental

encoder is also

* The Simple absolute

considered type "I".

Lead

Ball screw 1mm

4S: Lead screw 4mm

2S: Lead screw 2mm

1S: Lead screw 1mm

10:10W Servo 4: Ball screw 4mm 30:30mm

Ball screw 2mm 50: 50mm

Applicable controller — Cable length A1:ACON

N: None

Options See options below.

ASEL P: 1m A3:AMEC S: 3m ASEP M:5m

MSEP X□□:Custom Length





Power-saving

Technical References P.5

(1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for 1mm-Lead, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.

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

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

Actuator Specifications

■ Leads and Payloads

Model number	Motor output (W)	Feed screw	Lead (mm)	Max. Load Horizontal (kg)		Rated thrust (N)	Positioning Repeatability (mm)	Stroke (mm)
RCA2-TCA3NA-I-10-4-①-②-③-④			4	0.75	0.25	42.7		
RCA2-TCA3NA-I-10-2-①-②-③-④	10	Ball screw	2	1.5	0.5	85.5	±0.02	30 50
RCA2-TCA3NA-I-10-1-①-②-③-④			1	3	1	170.9		
RCA2-TCA3NA-I-10-4S-①-②-③-④			4	0.25	0.125	25.1		
RCA2-TCA3NA-I-10-2S-①-②-③-④	10	Lead screw	2	0.5	0.25	50.3	±0.05	30 50
RCA2-TCA3NA-I-10-15-①-②-③-④			1	1	0.5	100.5		
Code explanation ① Stroke ② Applicable co	ntroller ③	Cable	length	Option	S *See page	e A-71 for de	etails on pu	sh motion

Stroke and Maximum Speed

Lea	ad	30 (mm)	50 (mm)				
3	4	200					
Ball screw	2	100					
Ba	1	50					
Ma	4	200					
Lead screw	2	10	00				
Leg	1	5	0				

(Unit: mm/s)

① Stroke						
Stroke (mm)	Standa	Standard price				
	Feed screw					
(11111)	Ball screw	Lead screw				
30	_	_				
50	_	_				

4 Options

Option code	See page	Standard price
В	→ A-42	_
K1	→ A-51	_
K2	→ A-51	_
К3	→ A-51	_
LA	→ A-52	_
	B K1 K2 K3	B → A-42 K1 → A-51 K2 → A-51 K3 → A-51

③Cable Length

Notes or

O		
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 cable for the RCA2 is the robot cable.

Α	cti	ıa	tor	Sr	eci	ficat	tion	ď

Actuato	r 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	ntic moment	Ma: 14.1 N·m, Mb: 14.1 N·m, Mc: 6.7 N·m					
Ambient ope	rating temperature, humidity	0 to 40℃, 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.

30

Stroke

12

М

Weight (kg)

■ Dimensions and Weight by Stroke

*Brake-equipped models are heavier by 0.1kg.

30 89.5

86.5

73.5

64

0.37

50

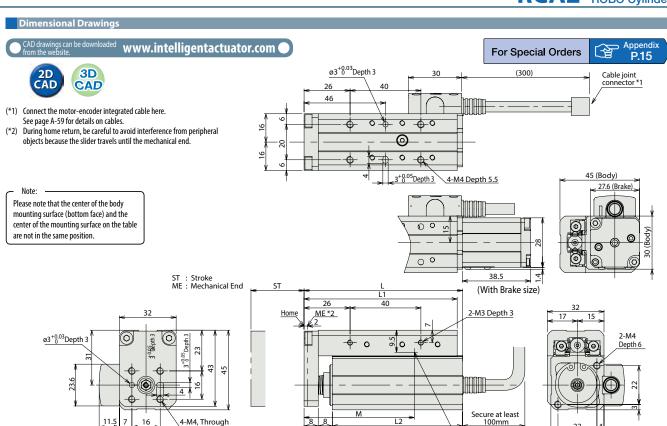
109.5

106.5

93.5

84

0.44



K3 \oplus **①** 11A1 K2 \oplus • K1 Cable exit direction options

Reference position for the moment offset 3^{+0.05}Depth 3 10 ø3 ^{+0.03} Depth 3 4-M4 Depth 4

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
Colonaid Valva Tuna		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	Anna I	MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected					, DE62
Solenoid valve multi-axis type Network specification	iiii	MSEP-C-(11)-~-(1V)-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points		(Standard) 1.3A rated	_	→ P563
Positioner type	E .	ACON-C-10I①-①-2-0	Positioning is possible for up to 512	512 it-	DC24V		_	
Safety-Compliant Positioner Type		ACON-CG-10I①-①-2-0	points	512 points		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)	è	ACON-PO-10I①-⑪-2-0	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-1-10I()-())-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 ⊕ when the power-savir

† ⊕ indicates number of axes (1 to 8). † ⊕ indicates field network specification symbol

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 -Series — Type

20

motor

I: Incremental

* The Simple absolute

considered type "I".

encoder is also

— Encoder type — Motor type — Lead — Stroke

2S: Lead screw 2mm

Applicable controller — Cable length

Options

See options below.

20:20W Servo 6: Ball screw 6mm 30:30mm A1:ACON 4: Ball screw 4mm 50: 50mm ASEL 2: Ball screw 2mm A3:AMEC 6S:Lead screw 6mm 4S: Lead screw 4mm

P: 1m S: 3m ASEP M:5m

MSEP X□□: Custom Length

N: None

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).

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

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

Actuator Specifications

■ Leads and Payloads

Model number	Motor output (W)	Feed screw	Lead (mm)	Max. Load Horizontal (kg)		Rated thrust (N)		Stroke (mm)	Lea	Stroke	30 (mm)	50 (mm)								
RCA2-TCA4NA-I-20-6-①-②-③-④			6	2	0.5	33.8			A.	6	270<220>	300								
RCA2-TCA4NA-I-20-4-①-②-③-④	20	20	20	20	20	20	20	1 20 1	20 Ball screw	0	4	3	0.75	50.7	±0.02	30 50	II screw	4	200	
RCA2-TCA4NA-I-20-2-①-②-③-④			2	6	1.5	101.5			Ball	2	100									
RCA2-TCA4NA-I-20-6S-①-②-③-④			6	0.25	0.125	19.9			screw	6	220	300								
RCA2-TCA4NA-I-20-4S-①-②-③-④	20	Lead screw									4	0.5	0.25	29.8	±0.05	30 50	ead scr	4	20	00
RCA2-TCA4NA-I-20-2S-①-②-③-④			2	1	0.5 59.7			Leg	2	10	00									
Code explanation ① Stroke ② Applicable co	ntroller 3	Cable	length	Option	S *See pag	e A-71 for d	etails on pu	sh motion.	* The v	alues enclosed i	n < > apply to vertical so	ettings. (Unit: mm/s)								

■ Stroke and Maximum Speed

Lea	Stroke	30 (mm)	50 (mm)				
W	6	270<220>	300				
Ball screw	4	20	00				
Ba	2	100					
ew	6	220	300				
ead screw	4	200					
Leg	2	100					

①Stroke

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

selectio

© Cable Leligtii		
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.

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	_

Actuator Specifications

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 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.

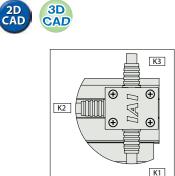
Cable joint connector *1

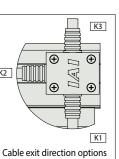
51 (Body) 33.6 (Brake)

For Special Orders

www.intelligentactuator.com

Dimensional Drawings

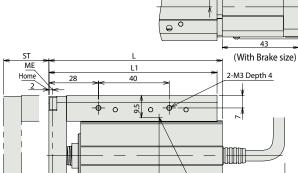




ST : Stroke ME : Mechanical End

0





ø3 ^{+0.03} Depth 3

-0-0 0

00

3^{+0.05}Depth 3

φ

3 ^{+0.05}Depth 3

43

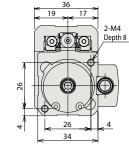
Secure at least 100mm Reference position for the moment offset

0

0

4-M4 Depth 5.5

28



*Brake-equipped models are heavier by 0.15kg.

■ Dimensions and Weight by Stroke

	weight	y Juloke
Stroke	30	50
L	98	118
L1	95	115
L2	80	100
M	66	86
Weight (kg)	0.48	0.6

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

please watch for any interference with surrounding objects.

(0)

 $ø3^{+0.03}_{0}$ Depth 3

23.6

4-M4. Throug

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.

4-M4 Depth 5

ø3 ^{+0.03} Depth 3

6.5

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power- supply	Standard price	Reference page
	AMF(-(-201(1)-2-1)		Easy-to-use controller, even for beginners	positioning points	AC100V	capacity 2.4A rated		→ P537
Solenoid Valve Type	1	ASEP-C-20I①-①-2-0	Simple controller operable with the same signal as a solenoid valve	3 points			_	→ P547
Solenoid valve multi-axis type PIO specification	MSEP-C-()-~-()-2-0		Positioner type based on PIO control, allowing up to 8 axes to be connected					. 0562
Solenoid valve multi-axis type Network specification	iiii j	MSEP-C-(11)-~-(10)-0-0	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.	_	→ P563
Positioner type	I.	ACON-C-20I①-①-2-0	Positioning is possible for up to 512	513 t.t.			_	
Safety-Compliant Positioner Type		ACON-CG-20I①-⑩-2-0	points	512 points			_	
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	Î	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

* This is for the single-axis ASEL.

* Enter the code "LA" in ⊕ when the power-savir

† ⊕ indicates number of axes (1 to 8). † ⊕ indicates field network specification symbol

CA2-TWA3NA

I: Incremental

encoder is also

considered type "I".

The Simple absolute motor

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

Model Specification Items

RCA2 — TWA3NA — Series — Type

10

— Encoder type — Motor type — Lead Stroke

A1:ACON

Applicable controller — Cable length N: None

Options See options below.

10:10W Servo 4: Ball screw 4mm 30:30mm 2: Ball screw 2mm 50: 50mm ASEL Ball screw 1mm A3:AMEC 4S: Lead screw 4mm ASEP 2S: Lead screw 2mm 1S: Lead screw 1mm

M:5m MSEP X□□: Custom Length

P: 1m

S: 3m

[C €] RoHS



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



Power-saving

Technical References



The payload is the value when the actuator is operated at an acceleration of

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

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

Actuator Specifications

■ Leads and Payloads

Model number	Motor output (W)	Feed screw	Lead (mm)	Max. Loac Horizontal (kg)	Capacity Vertical (kg)	Rated thrust (N)	Positioning Repeatability (mm)	Stroke (mm)	Lea	Stroke d	30 (mm)	50 (mm)							
RCA2-TWA3NA-I-10-4-①-②-③-④			4	0.75	0.25	42.7			×	4	20	0							
RCA2-TWA3NA-I-10-2-①-②-③-④	10	10	10	10	10	10	10	10	10 Ball screw	2	1.5	0.5	85.5	±0.02	30 50	II screw	2	10	00
RCA2-TWA3NA-I-10-1-①-②-③-④			1	3	1	170.9			Ball	1	50	0							
RCA2-TWA3NA-I-10-4S-①-②-③-④			4	0.25	0.125	25.1			screw	4	20	0							
RCA2-TWA3NA-I-10-2S-①-②-③-④	10	Lead screw			2	0.5	0.25	50.3	±0.05	30 50		2	10	0					
RCA2-TWA3NA-I-10-1S-①-②-③-④			1	1	0.5	100.5			Lead	1	50	0							
Code explanation ① Stroke ② Applicable cor	ntroller ③	Cable le	ength [4 Options	*See page	A-71 for de	etails on pus	h motion.	* The v	alues enclosed i	n < > apply to vertical se	ettings. (Unit: mm/s)							

■ Stroke and Maximum Speed

Lea	Stroke	30 (mm)	50 (mm)		
*	4	00			
Ball screw	2	10	00		
Ba	1	50			
ew	4	20	00		
ead screw	2	100			
Leg	1	5	0		

① Stroke

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

③Cable 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 cable for the RCA2 is the robot cable. * See page A-59 for cables for maintenance.

4 Options

Name	Option code	See page	Standard price
Brake	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	_

Actuator Specifications

Actuato	or 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			
	namic moment (Note)	Ma: 9.9 N·m, Mb: 9.9 N·m, Mc: 9.4 N·m			
Allowable sta	atic moment	Ma: 14.1 N·m, Mb: 14.1 N·m, Mc: 19.1 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.

89.5

86.5

73.5

64

0.52

12

М

Weight (kg)

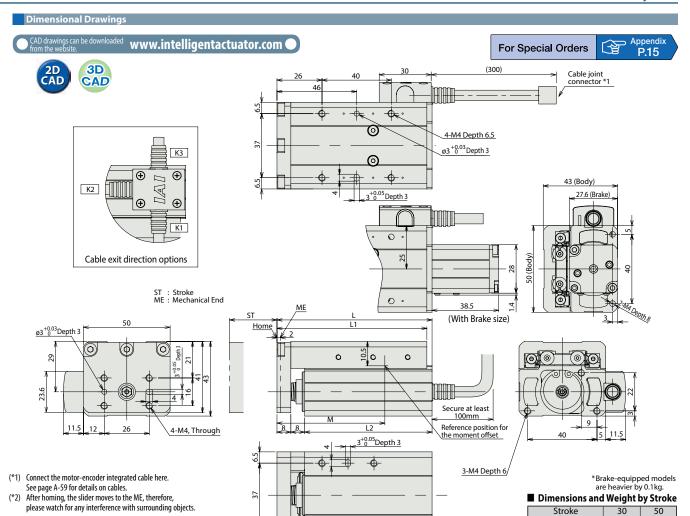
109.5

106.5

93.5

84

0.58



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.

4-M4 Depth 6

10

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
Solenoid Valve Type	W.	AMEC-C-10I①-①-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P537
Solenoid valve Type	1	ASEP-C-10I()-())-2-0	Simple controller operable with the same signal as a solenoid valve	3 points			_	→ P547
Solenoid valve multi-axis type PIO specification	Anna I	MSEP-C-()-~-()-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected			(Standard) 1.3A rated 4.4A max. (Power-saving)		→ P563
Solenoid valve multi-axis type Network specification	iiii	MSEP-C-()-~-(\vec{V}-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points			_	, 1303
Positioner type	I.	ACON-C-10I①-①-2-0	Positioning is possible for up to 512 points	512 points			_	
Safety-Compliant Positioner Type		ACON-CG-10I①-(V)-2-0					_	
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)	è	ACON-PO-10I①-⑪-2-0	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				→ P675

* This is for the single-axis ASEL.

* Enter the code "LA" in ⊕ when the power-savir

† ⊕ indicates number of axes (1 to 8). † ⊕ indicates field network specification symbol

RCA2-TWA4NA

I: Incremental

The Simple absolute

considered type "I".

encoder is also

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 — Series — Type

20

motor

– Encoder type — Motor type — Lead

4: Ball screw 4mm 50: 50mm

Ball screw 2mm

6S: Lead screw 6mm

4S: Lead screw 4mm

2S: Lead screw 2mm

Stroke 20:20W Servo 6: Ball screw 6mm 30:30mm

A1:ACON

Applicable controller — Cable length N: None

Options See options below.

ASEL P: 1m A3:AMEC S: 3m ASEP M:5m

MSEP X□□: Custom Length

RoHS

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





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

Model number	Motor output (W)	Feed screw	Lead (mm)	Max. Load Horizontal (kg)	Capacity Vertical (kg)	Rated thrust (N)	Positioning Repeatability (mm)	Stroke (mm)	Lea	Stroke	30 (mm)	50 (mm)		
RCA2-TWA4NA-I-20-6-①-②-③-④			6	2	0.5	33.8			N.	6	270<220>	300		
RCA2-TWA4NA-I-20-4-①-②-③-④)()	20	20 Ball screw	Ball screw	4	3	0.75	50.7	±0.02	30 50	III screw	4	20	00
RCA2-TWA4NA-I-20-2-①-②-③-④				2	6	1.5	101.5			Ball	2	10	0	
RCA2-TWA4NA-I-20-6S-①-②-③-④			6	0.25	0.125	19.9			screw	6	220	300		
RCA2-TWA4NA-I-20-4S-①-②-③-④		20 Lead screw				0.5	0.25	29.8	±0.05	30 50	ead scr	4	20	0
RCA2-TWA4NA-I-20-2S-①-②-③-④			2	1	0.5	59.7			Leg	2	10	0		
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)														

■ Stroke and Maximum Speed

Lea	Stroke	30 (mm)	50 (mm)		
<u> </u>	6	270<220>	300		
Ball screw	4	200			
Ba	2	100			
ew	6	220	300		
Lead screw	4	200			
Leg	2	10	00		

① Stroke

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

③Cable 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)	ı

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

4 Options

Name	Option code	See page	Standard price
Brake	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	

Actuator Specifications

Actuato	or 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 ope	rating 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.

Flat Type

50

118

115

100

86

0.77

30 98

95

80

66

0.65

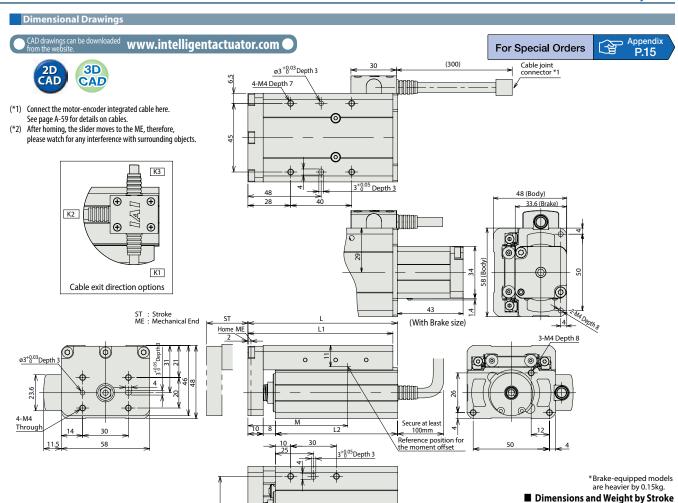
Stroke

12

М

Weight (kg)

Pulse Motor



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.

4-M4 Depth 8

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
Colonoid Valva Tuna		AMEC-C-20I①-①-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P537
Solenoid Valve Type		ASEP-C-20I①-①-2-0	Simple controller operable with the same signal as a solenoid valve	3 points			_	→ P547
Solenoid valve multi-axis type PIO specification	Anna 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	iiii	MSEP-C	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points			_	7 7503
Positioner type	I.	ACON-C-20I①-①-2-0	Positioning is possible for up to 512	512 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving)	_	
Safety-Compliant Positioner Type		ACON-CG-20I①	points				_	
Pulse Train Input Type (Differential Line Driver)	O.	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)	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-1-20I①-⑪-2-0	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 ⊕ when the power-savir

† ⊕ indicates number of axes (1 to 8). † ⊕ indicates field network specification symbol

RCA2-TFA3NA

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

Model Specification Items

RCA2 — TFA3NA — Series — Type

I: Incremental

The Simple absolute

considered type "I".

encoder is also

10

motor

— Encoder type — Motor type — Lead

2: Ball screw 2mm 50: 50mm

10:10W Servo 4: Ball screw 4mm 30:30mm

Ball screw 1mm

4S: Lead screw 4mm

2S: Lead screw 2mm

1S: Lead screw 1mm

Applicable controller — Cable length

— Options See options below.

A1:ACON N: None ASEL P: 1m A3:AMEC S: 3m ASEP M:5m

MSEP X□□: Custom Length

[C € RoHS



Power-saving

Technical References



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

Actuator Specifications

■ Leads and Payloads

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

■ Stroke and Maximum Speed

Lea	Stroke	50 (mm)					
N.	4	00					
Ball screw	2	2 100					
Ba	1	50					
ew	4	20	00				
ead screw	2	10	00				
Leš	1	5	0				

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

See page | Standard price

→ A-42

→ A-51

→ A-51

→ A-51

→ A-52

(Unit: mm/s)

4 Options

Brake

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

Option code

K2

K3

③Cable Length

Туре	Cable symbol	Standard price
Standard	P (1m)	1
(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 for the RCA2 is the robot cable. * See page A-59 for cables for maintenance.

Actuator Specifications

Actuate				
	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 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	rating 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.

Name

Connector cable exits from the left

Connector cable exits from the front

Connector cable exits from the right

Power-saving specification

For Special Orders

Cable joint connector *1

28 (Body) 27.6 (Brake)

o 0 0

6

0

(300)

3 +0.03 Depth 3

P.15

Flat Type

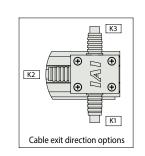


2D CAD 3D CAD

Dimensional Drawings

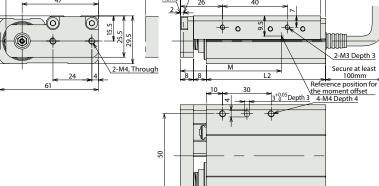
(*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables.

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



ST: Stroke ME: Mechanical End

0-40 <u></u> 0 3^{+0.05}Depth 3 4-M4 Depth 5.5 Ð 0 0 0 (With Brake size)



ø3^{+0.03}Depth 3

*Brake-equipped models are heavier by 0.1kg.

Dimensions and Weight by Stroke

Ma Depth 6

4 3-M4 Depth 6

		, , , , , , , , , , , , , , , , , , ,
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

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	
Solenoid Valve Type	W.	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					→ P563	
Solenoid valve multi-axis type Network specification	iiii	MSEP-C-()-~-(\vec{V}-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points			_	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Positioner type	I.	ACON-C-10I①-①-2-0	Positioning is possible for up to 512	512 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving)	1.3A rated	_	
Safety-Compliant Positioner Type		ACON-CG-10I①	points				_		
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)	è	ACON-PO-10I①-⑪-2-0	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-1-10I①-⑪-2-0	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.
*® indicates I/O type (NP/PN).

*® indicates I/O type (NP/PN).

RCA2-TFA4NA

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

Model Specification Items

RCA2 — TFA4NA —

20

motor

— Encoder type — Motor type — Lead

A1:ACON

Applicable controller — Cable length N: None

Options See options below.

20:20W Servo 6: Ball screw 6mm 30:30mm 4: Ball screw 4mm 50: 50mm ASEL Ball screw 2mm A3:AMEC 6S: Lead screw 6mm ASEP 4S: Lead screw 4mm 2S: Lead screw 2mm

M:5m X□□: Custom Length

P: 1m

S: 3m





I: Incremental

encoder is also

The Simple absolute

considered type "I".





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

Model number	Motor output (W)	Feed screw	Lead (mm)	Max. Load Horizontal (kg)	Capacity Vertical (kg)	Rated thrust (N)	Positioning Repeatability (mm)	Stroke (mm)	Lea	Stroke	30 (mm)	50 (mm)							
RCA2-TFA4NA-I-20-6-①-②-③-④			6	2	0.5	33.8			>	6	270<220>	300							
RCA2-TFA4NA-I-20-4-①-②-③-④	20	20	20	20	20	20	20	20	Ball screw	4	3	0.75	50.7	±0.02	30 50	II screw	4	20	00
RCA2-TFA4NA-I-20-2-①-②-③-④			2	6	1.5	101.5			Ball	2	100								
RCA2-TFA4NA-I-20-65-①-②-③-④			6	0.25	0.125	19.9			screw	6	220	300							
RCA2-TFA4NA-I-20-4S-①-②-③-④	20 Lead screw	70	70	/0	4	0.5	0.25	29.8	±0.05	30 50	ead scr	4	20	00					
RCA2-TFA4NA-I-20-25-①-②-③-④			2	1	0.5	59.7			Lea	2	10	00							
Code explanation ① Stroke ② Applicable cor	Code explanation																		

■ Stroke and Maximum Speed

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

① 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	_

③Cable Length

selection

Type	Cable symbol	Standard price
Standard	P (1m)	_
	S (3m)	_
(Robot 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

Actuator specifications				
	ltem	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 static moment		Ma: 14.1 N·m, Mb: 14.1 N·m, Mc: 6.7 N·m		
Ambient ope	rating 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 Special Orders

Appendix P.15

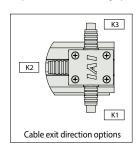
Dimensional Drawings

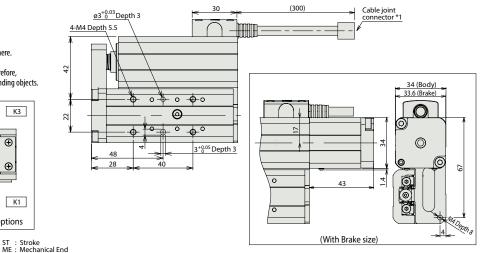
www.intelligentactuator.com

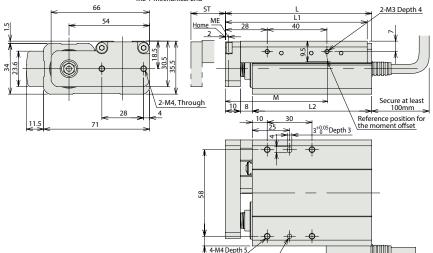


(*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables.

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







Weight (kg)

*Brake-equipped models are heavier by 0.15kg.

3-M<u>4 Depth 8</u>

Dimensions and Weight by Strok						
Stroke	30	50				
L	98	118				
L1	95	115				
L2	80	100				
M	66	86				

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.

ø3^{+0.03}Depth 3

nc. 2 series actuators can be operated with the controllers indicated below. Select the type according to your interface application.								
Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power- supply capacity	Standard price	Reference page
Colonaid Valva Typa	W.	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	Simple controller operable with the same signal as a solenoid valve	3 points			_	→ P547
Solenoid valve multi-axis type PIO specification	Anna 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	iiii	MSEP-C	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points			_	7 7 7 303
Positioner type	E .	ACON-C-20I①-①-2-0	Positioning is possible for up to 512	F12 points		(Standard) 1.3A rated	_	
Safety-Compliant Positioner Type		ACON-CG-20I①	points	512 points	DC24V	4.4A max. (Power-saving)	_	
Pulse Train Input Type (Differential Line Driver)	C.	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)	4	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

* (indicates number of axes (1 to 8). * (i) indicates field network specification symbol.

Arm Flat Type



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

Model Specification Items RCA2 —

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

TA4C Type — Encoder type — Motor type — I: Incremental

The Simple abso-

lute encoder is also

considered type "I".

10: 10W Servo motor

10

Lead 6: 6mm 4: 4mm 2: 2mm

Stroke 20: 20mm 100: 100mm

(10mm pitch increments)

Applicable controller — Cable length A1:ACON

ASEL

N: None P: 1m S: 3m

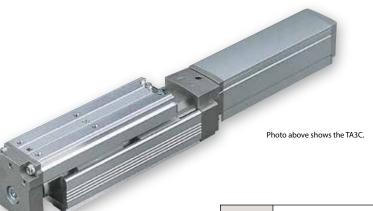
Options See options below.

A3:AMEC ASEP M:5m

MSEP X□□:Custom Length

CE RoHS

Power-saving



The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G in the case of 2mm-lead and vertical usage). The upper limit for acceleration is 0.3G (or 0.2G in case of 2mm-lead and vertical usage). selectio

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

Actuator Specifications

■ Leads and Payloads

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

■ Stroke and Maximum Speed

Technical

References

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

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

(Unit: mm/s)

P.5

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

$\overline{}$			
l			
	_		

③Cable Length

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

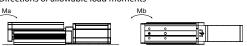
* The standard cable for the RCA2 is the robot cable. * See page A-59 for cables for maintenance.

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	_

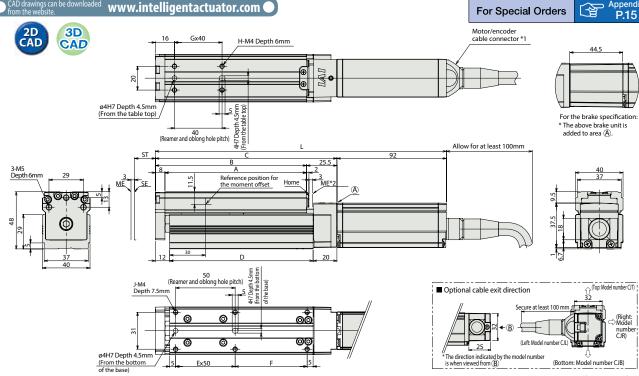
Actuator Specifications

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

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



Dimensional Drawings CAD drawings can be downloaded www.intelligentactuator.com



(*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											
Γ	Stroke	20	30	40	50	60	7					

is when viewed from (B)

*Brake-equipped model: 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	Reference page
Solenoid Valve Type	W.	AMEC-C-10I①-①-2-1	Easy-to-use controller, even for beginners	AC100V		2.4A rated	_	→ P537
Solenolu valve Type	1	ASEP-C-10I①-①-2-0	Simple controller operable with the same signal as a solenoid valve	3 points		(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	_	→ 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				-	→ P563
Solenoid valve multi-axis type Network specification	iiii	MSEP-C-()-~-(\vec{V}-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points				
Positioner type		ACON-C-10I①-①-2-0	Positioning is possible for up to 512	512 points	DC24V		_	→ P631
Safety-Compliant Positioner Type		ACON-CG-10I①	points				_	
Pulse Train Input Type (Differential Line Driver)	200	ACON-PL-10I①-①-2-0	Pulse train input type with differential line driver support	()			_	
Pulse Train Input Type (Open Collector)		ACON-PO-10I①-⑪-2-0	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			_	→ 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).
*⑩ indicates number of axes (1 to 8). *⑩ indicates field network specification symbol.

IVIIIII

Controllers Integrated

> Rod Type

Min

Standard

Table Arm

lat Typ

101111

Gripper

Linear Servo Type

Clean roon Type

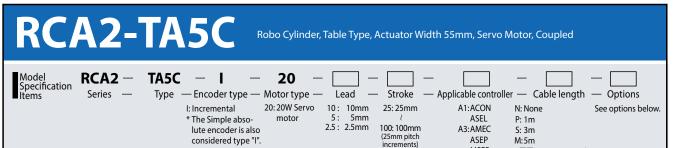
Splash Proo Type

> Pulse Motor

Servo Moto (24V

Servo Motor (200V)

Linear Servo Motor

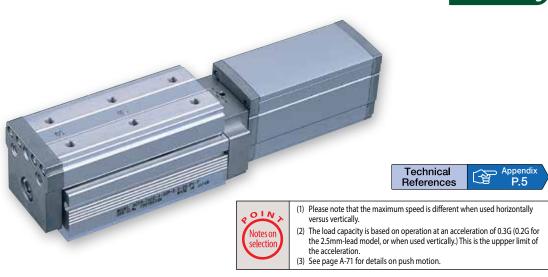


CE RoHS

Power-saving

X□□:Custom Length

MSEP



Actuator Specifications								
■ Leads and Payloads ■ Stroke and Maximum Speed								
Model number	Motor output (W)	Lead (mm)	Max. Loac	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 ① Stroke ② Applicable Controller ③ Cable length ④ Options *See page A-71 for details on push motion. *The values enclosed in < > apply to vertical settings. (Unit: mm/s)								

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

③ Cable 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.

④ Options								
Option code	See page	Standard price						
В	→ A-42	_						
CJT	→ A-42	_						
CJR	→ A-42	_						
CJL	→ A-42	_						
CJB	→ A-42	_						
LA	→ A-52	_						
NM	→ A-52							
	B CJT CJR CJL CJB LA	$\begin{array}{ccc} \mathbf{B} & \rightarrow \mathrm{A-42} \\ \mathbf{CJT} & \rightarrow \mathrm{A-42} \\ \mathbf{CJR} & \rightarrow \mathrm{A-42} \\ \mathbf{CJL} & \rightarrow \mathrm{A-42} \\ \mathbf{CJB} & \rightarrow \mathrm{A-42} \\ \mathbf{LA} & \rightarrow \mathrm{A-52} \\ \end{array}$						

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



Flat Type

25 | 50 | 75 | 100

284.5 309.5 334.5 359.5

135.5 | 160.5 | 185.5 | 210.5

128

1 2

68

1

4

6

1.4 1.5

269 | 294 | 319

153 178

163 188

153

43 2

8

178

2

68 2

6 8

244

103 128

103

1

43

1

4

6

1.2

113 138

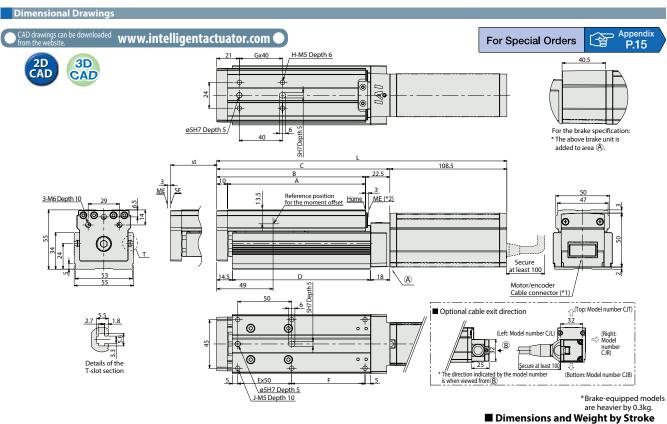
Stroke Without brake

With brake

G

Н

Weight (kg)



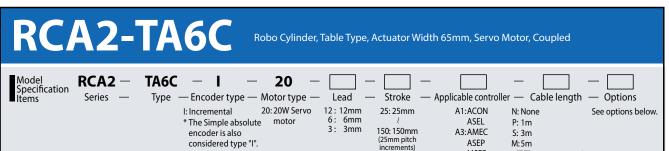
(*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables. (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.

ME: Mechanical end SE: Stroke end

② Appl	icablo	Contro	OFC
CAPPI	ICADIC	COILLIO	IIIGIS

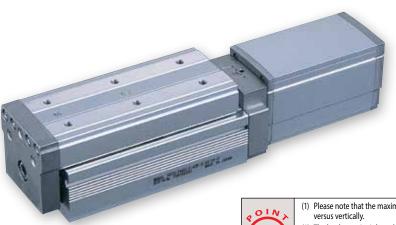
RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application. *ACON-CY also can be used.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power- supply capacity	Standard price	Reference page
Solonoid Volvo Tuno		AMEC-C-20SI(])-()-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P537
Solenoid Valve Type	1	ASEP-C-20SI①-①-2-0	Simple controller operable with the same signal as a solenoid valve	3 points			_	→ P547
Solenoid valve multi-axis type PIO specification	lune 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	iiii	MSEP-C	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points		(Standard) 1.7A rated 5.1A max. (Power-saving)	_	7 2003
Positioner type		ACON-C-20SI(]-(i)-2-0	Positioning is possible for up to 512	512 points	DC24V		_	
Safety-Compliant Positioner Type		ACON-CG-20SI①-⑩-2-0	points	312 points			_	
Pulse Train Input Type (Differential Line Driver)	O.	ACON-PL-20SI①	Pulse train input type with differential line driver support	(—)			_	→ P631
Pulse Train Input Type (Open Collector)	6	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-1-20SI①-⑪-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			_	→ P675



CE RoHS

Power-saving



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

X□□:Custom Length

(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.

Technical References

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

MSEP

Actuator Specifications

■ Leads and Payloads

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

■ Stroke and Maximum Speed

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

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

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

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

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 (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	I

③Cable Length

Type	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)	_

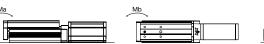
The standard cable for the RCA2 is the robot cable.

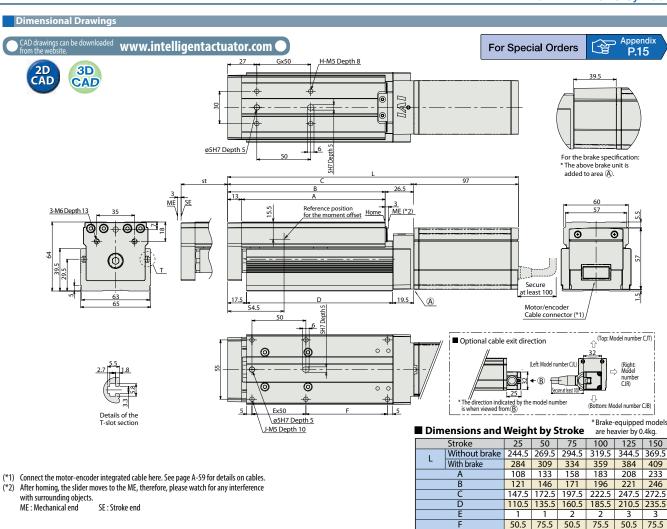
See page A-59 for cables for maintenance.

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: 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





② Applicable Controllers	
© Applicable Collicioners	

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	W.	AMEC-C-20I①	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	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-(II)-~-(IV)-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points			_	7 7 303
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)		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)	6	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-1-20I()-())-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			_	→ P675

* (1) indicates number of axes (1 to 8). * (1) indicates field network specification symbol.

Slider Type

Min

Controllers

Rod Type

Mini

Controller

Table/ Arm/ Flat Type

Mini

Gripper/ Rotary Type

Linear Servo Type

Cleanoom ype

plash Proof vpe

> ulse lotor

ervo lotor 24V)

Servo Motor 200V)

inear Servo Motor

4

6

1.8

Weight (kg)

4

6

2.2

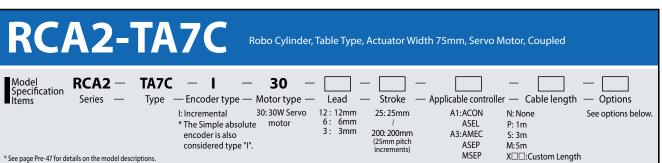
8

2.4

10 10

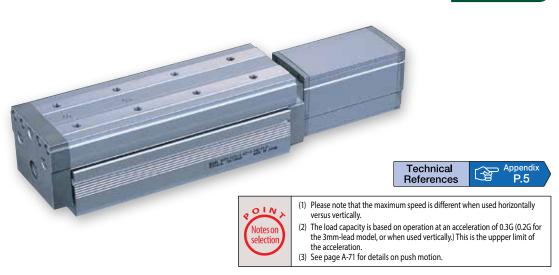
2.6

2.8



CE RoHS

Power-saving



■ Leads and Payloads ■ Stroke and Maximum								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)
CA2-TA7C-I-30-12-①-②-③-④		12	4	1	26		12	600<580>
CA2-TA7C-I-30-6-①-②-③-④	30	6	6	2.5	53	25~200 (every 25mm)	6	300
CA2-TA7C-I-30-3-10-20-30-4] [3	8	4	105		3	150

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		
Type	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 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)

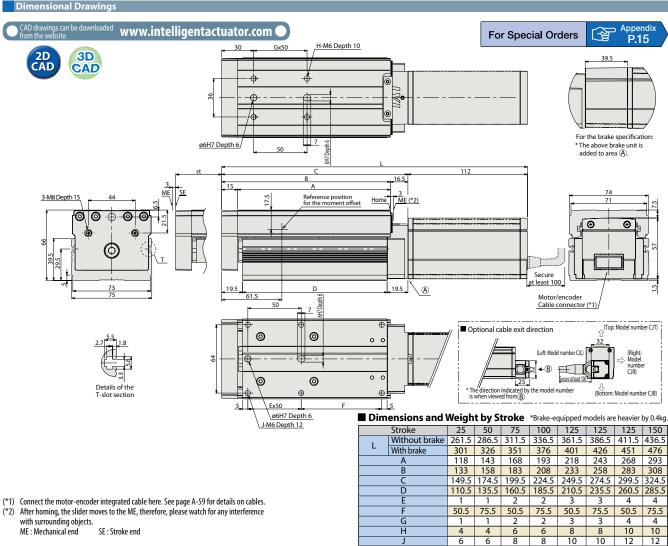
(*) Based on 5,000km of traveling life







Table/ Flat Type



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.

Weight (kg)

2.1

2.3 2.5 2.8

3.2

3.4

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power- supply capacity	Standard price	Reference page
Colonaid Valva Tuna		AMEC-C-30I①	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P537
Solenoid Valve Type	1	ASEP-C-30I①-①-2-0	Simple controller operable with the same signal as a solenoid valve				_	→ P547
Solenoid valve multi-axis type PIO specification	Anna I	MSEP-C	Positioner type based on PIO control, Illowing 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			_	7 7505
Positioner type		ACON-C-30I①2-0	Positioning is possible for up to 512	E12 points		(Standard) 1.3A rated	_	
Safety-Compliant Positioner Type		ACON-CG-30I①-⑩-2-0	points	512 points	DC24V	4.4A max. (Power-saving)	_	
Pulse Train Input Type (Differential Line Driver)	É.	ACON-PL-30I①-⑪-2-0	Pulse train input type with differential line driver support	()		1.3A rated 2.2A max.	_	→ P631
Pulse Train Input Type (Open Collector)	è	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			_	
Program Control Type		ASEL-CS-1-30I①-⑪-2-0	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.
*® indicates I/O type (NP/PN).

*® indicates I/O type (NP/PN).

Arm Flat Type

RCA2-TA4R

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

Model Specification Items

RCA2 —

TA4R

I: Incremental

* The Simple absolute

considered type "I".

encoder is also

10

10: 10W Servo

motor

Type — Encoder type — Motor type — Lead

6: 6mm 4: 4mm

2: 2mm

Stroke 20: 20mm 100: 100mm

(10mm pitch increments)

Applicable controller — Cable length — Options A1:ACON ASEL

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

MSEP

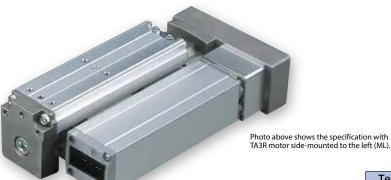
See options below.

* Be sure to specify which side the motor is to be mounted (ML/MR) X□□:Custom Length

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

CERoHS

Power-saving



selection

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

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

■ Stroke and Maximum Speed

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

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

(Unit: mm/s)

P.5

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

	③Cable Length		
ĺ	Туре		
ı	Standard		

Type	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.

4 Options

90 100

①Stroke

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	
Side-mounted motor to the left (standard)	ML	→ A-52	_
Side-mounted motor to the right	MR	→ A-52	_
Non-motor end specification	NM	→ A-52	_

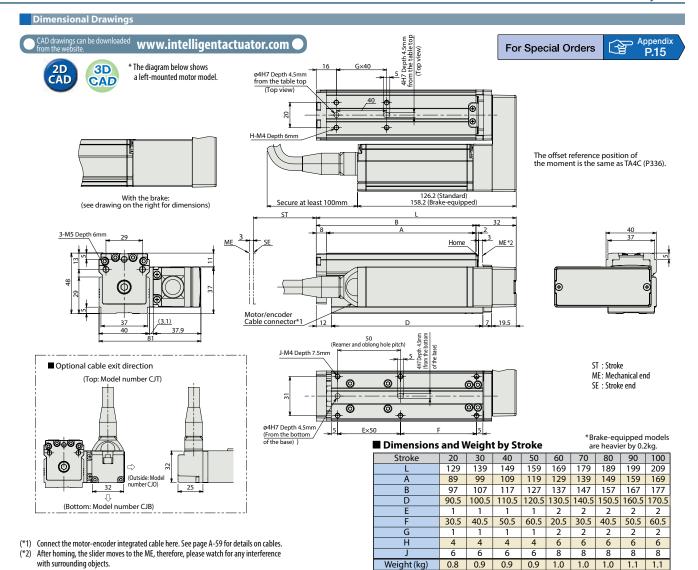
Actuator Specifications

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

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







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.

External view	Model number	Features	Maximum number of positioning points	Input power	Power- supply capacity	Standard price	Reference page
- FE	AMEC-C-10I①-①-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P537
1	ASEP-C-10I①-①-2-0	Simple controller operable with the same signal as a solenoid valve	3 points			_	→ P547
	MSEP-C-()-~-()-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected					→ P563
diiii j	MSEP-C-()-~-(\vec{V}-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points			_	→ P303
-	ACON-C-10I①-①-2-0	Positioning is possible for up to 512	512 points		(Standard) 1.3A rated	_	
	ACON-CG-10I①	points		DC24V	4.4A max. (Power-saving)	_	
	ACON-PL-10I①-⑪-2-0	Pulse train input type with differential line driver support	()		1.3A rated 2.5A max.	_	→ P631
6	ACON-PO-10I①	Pulse train input type with open collector support	(—)			_	
	ACON-SE-10I①-N-0-0	Dedicated Serial Communication	64 points			_	
Die.	ASEL-CS-1-10I①-⑪-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			_	→ P675
		AMEC-C-10I①-①-2-1 ASEP-C-10I①-①-2-0 MSEP-C-①①-2-0 MSEP-C-①②-0-0 ACON-C-10I①-①-2-0 ACON-CG-10I①-①-2-0 ACON-PL-10I①-①-2-0 ACON-SE-10I①-N-0-0 ASEL-CS-1-10I①-①-2-0	AMEC-C-10I①-①-2-1 Easy-to-use controller, even for beginners Simple controller operable with the same signal as a solenoid valve MSEP-C-①①-2-0 MSEP-C-①①-0-0 MSEP-C-①①-0-0 ACON-C-10I①-①-2-0 ACON-C-10I①-①-2-0 ACON-PL-10I①-①-2-0 Pulse train input type with differential line driver support ACON-PO-10I①-①-2-0 Pulse train input type with open collector support ACON-SE-10I①-N-0-0 Dedicated Serial Communication Programmed operation is possible. Can operate up to 2 axes	AMEC-C-10I()-()-2-1 Easy-to-use controller, even for beginners Simple controller operable with the same signal as a solenoid valve MSEP-C-())-()-()-2-0 Positioner type based on PIO control, allowing up to 8 axes to be connected MSEP-C-())-()-()-0-0 Field network-ready positioner type, allowing up to 8 axes to be connected ACON-C-10I()-()-2-0 ACON-C-10I()-()-2-0 Positioning is possible for up to 512 points ACON-PL-10I()-()-2-0 Pulse train input type with differential line driver support ACON-PO-10I()-()-2-0 Pulse train input type with open collector support ACON-SE-10I()-N-0-0 Dedicated Serial Communication 64 points ASEL-CS-1-10I()-()-2-0 Programmed operation is possible. Can operate up to 2 axes	AMEC-C-10I①-①-2-1 Easy-to-use controller, even for beginners ASEP-C-10I①-①-2-0 Simple controller operable with the same signal as a solenoid valve MSEP-C-①-②-2-0 Positioner type based on PIO control, allowing up to 8 axes to be connected MSEP-C-①-②-0-0 Field network-ready positioner type, allowing up to 8 axes to be connected ACON-C-10I①-①-2-0 Positioning is possible for up to 512 points ACON-CG-10I①-②-2-0 Pulse train input type with differential line driver support ACON-PO-10I①-①-2-0 Pulse train input type with open collector support ACON-SE-10I①-N-0-0 Dedicated Serial Communication ASEL-CS-1-10I①-①-2-0 Programmed operation is possible. Can operate up to 2 axes	AMEC-C-10I①-①-2-1 Easy-to-use controller, even for beginners ASEP-C-10I①-①-2-0 Simple controller operable with the same signal as a solenoid valve MSEP-C-①-②-2-0 MSEP-C-①-②-2-0 Positioner type based on PIO control, allowing up to 8 axes to be connected MSEP-C-①-②-0-0 Field network-ready positioner type, allowing up to 8 axes to be connected ACON-C-10I①-①-2-0 Positioning is possible for up to 512 points ACON-CG-10I①-①-2-0 Pulse train input type with differential line driver support ACON-PO-10I①-①-2-0 Pulse train input type with open collector support ACON-SE-10I①-N-0-0 Dedicated Serial Communication ASEL-CS-1-10I①-①-2-0 Programmed operation is possible. Can operate up to 2 axes AC100V 2.4A rated AC100V CStandard 1.3A rated 4.4A max. (Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	AMEC-C-10I()-()-2-1 Easy-to-use controller, even for beginners ASEP-C-10I()-()-2-0 Simple controller operable with the same signal as a solenoid valve MSEP-C-()()-2-0 Positioner type based on PIO control, allowing up to 8 axes to be connected MSEP-C-()()-2-0 Field network-ready positioner type, allowing up to 8 axes to be connected ACON-C-10I()-()-2-0 Positioning is possible for up to 512 points ACON-PL-10I()-()-2-0 Pulse train input type with differential line driver support ACON-PO-10I()-()-2-0 Pulse train input type with open collector support ACON-SE-10I()-N-0-0 Dedicated Serial Communication ASEL-CS-1-10I()-()-2-0 Programmed operation is possible. Can operate up to 2 axes AC100V 2.4A rated — (Standard) 1.3A rated 1.3A rated 2.5A max. (Power-saving) 1.3A rated 2.5A max. — ACON-SE-10I()-N-0-0 Dedicated Serial Communication ASEL-CS-1-10I()-()-2-0 Programmed operation is possible. Can operate up to 2 axes

* (1 to 8). * (1) indicates field network specification symbol.

Model Specification Items

C € RoHS

RCA2-TA5R

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

RCA2 — TA5R

Type — Encoder type — Motor type — I: Incremental 20: 20W Servo

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

20

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

25: 25mm 100: 100mm (25mm pitch increments)

Applicable controller A1:ACON ASEL

P: 1m A3:AMEC S: 3m ASEP M:5m MSEP

 Cable length Options See options below.

* Be sure to specify which side the N: None motor is to be mounted (ML/MR) X□□:Custom Length

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 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 output (W)	Lead		Capacity	Rated thrust (N)	Stroke (mm)
	output (w)	(mm)	Horizontal (kg)	Vertical (kg)	trirust (IV)	(IIIII)
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	

■ Stroke and Maximum Speed

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

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

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

①Stroke	
①Stroke	

4 Options

Cable exit direction (top)

Cable exit direction (outside)

Cable exit direction (bottom)

Left-mounted motor (standard)

Non-motor end specification

Power-saving specification

Right-mounted motor

Brake

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

Option code

CJT

CJO

CJB

LA

ML

MR

NM

→ A-42

→ A-42

→ A-42

→ A-42

→ A-52

→ A-52

→ A-52

→ A-52

	Capie	EGIIG	111

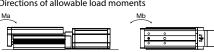
Туре	Cable symbol	Standard price
Standard	P (1m)	_
(Robot Cables)	S (3m)	_
(Robot Cables)	M (5m)	_
Special length	X06 (6m) ~ X10 (10m)	_
	X11 (11m) ~ X15 (15m)	_
	X16 (16m) ~ X20 (20m)	_

The standard cableis the motor-encoder integrated robot cable.

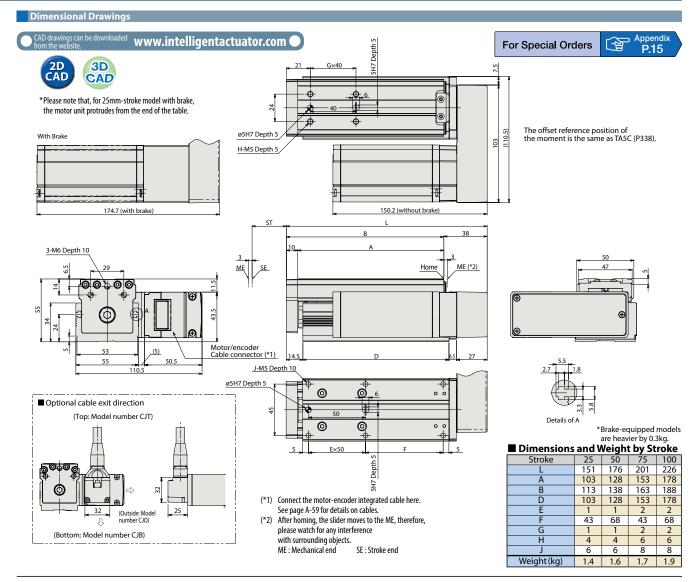
* See page A-59 for cables for maintenance.

Actuator Specifications See page Standard price

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)				







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	W.	AMEC-C-20SI()-())-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P537
Solenoid valve Type	1	ASEP-C-20SI①-①-2-0	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 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					_	7 1503
Positioner type	-	ACON-C-20SI①	Positioning is possible for up to 512	512 points	DC24V	(Standard) 1.7A rated 5.1A max. (Power-saving)	_	
Safety-Compliant Positioner Type		ACON-CG-20SI①-⑩-2-0	points				_	
Pulse Train Input Type (Differential Line Driver)	œ.	ACON-PL-20SI①	Pulse train input type with differential line driver support	pport		1.7A rated 3.4A max.	_	→ P631
Pulse Train Input Type (Open Collector)	è	ACON-PO-20SI①-⑪-2-0	Pulse train input type with open collector support				_	
Serial Communication Type		ACON-SE-20SI①-N-0-0	Dedicated Serial Communication 64 poin					
Program Control Type		ASEL-CS-1-20SI()-(i)-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			_	→ P675
* This is for the single-axis ASEL.	* Ente		Can operate up to 2 axes he power-saving specification is specif		es I/O type (NP/PN).		. 075

* (1 to 8). * (1) indicates field network specification symbol.

CA2-TA6R

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

Model Specification Items

RCA2 —

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

TA6R

I: Incremental

* The Simple absolute

considered type "I".

encoder is also

20

motor

Type — Encoder type — Motor type — Lead 20: 20W Servo

6: 6mm

3: 3mm

Stroke 12:12mm 25: 25mm

(25mm pitch

increments)

Applicable controller 150: 150mm

A1:ACON ASEL A3:AMEC

ASEP

MSEP

N: None P: 1m S: 3m M:5m X□□:Custom Length

Cable length

Options See options below.

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

C € RoHS

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 output (W)	Lead (mm)	Max. Load Capacity Horizontal (kg) Vertical (kg)		Rated thrust (N)	Stroke (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 and Maximum Speed

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

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

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

① Juloke	
①Stroke (mm)	
25	

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

③Cable Length
Type

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

MR

NM

→ A-52

→ A-52

Actuator Specifications

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

Directions of allowable load moments

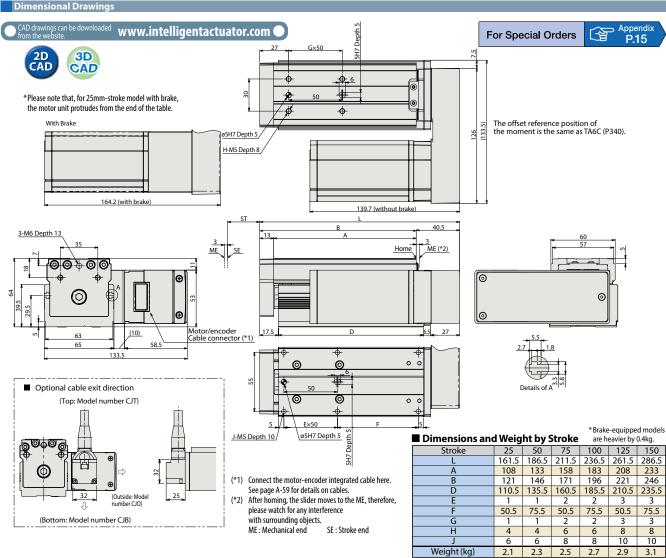






Right-mounted motor

Non-motor end specification



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	W.	AMEC-C-20I①	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	Anna 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	iiii	MSEP-C	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points		(Power-saving)	_	, 1303	
Positioner type	E .	ACON-C-20I①-⑪-2-0	Positioning is possible for up to 512	512 points DC24			_		
Safety-Compliant Positioner Type		ACON-CG-20I①-⑩-2-0	points		DC24V		_		
Pulse Train Input Type (Differential Line Driver)	O.	ACON-PL-20I①-⑪-2-0	Pulse train input type with differential line driver support	upport (—)		1.3A rated 2.5A max.		→ P631	
Pulse Train Input Type (Open Collector)	ė.	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	

CA2-TA7R

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

Model Specification Items RCA2 —

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

CE RoHS

TA7R Type — Encoder type — Motor type —

I: Incremental

* The Simple absolute

considered type "I".

encoder is also

30

motor

Lead 30: 30W Servo 12: 12mm

6: 6mm

3: 3mm

Stroke 25: 25mm

(25mm pitch

increments)

200: 200mm

Applicable controller A1:ACON ASEL

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

MSEP

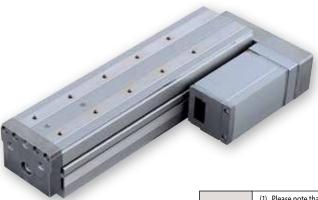
See options below.

* Be sure to specify which side the motor is to be mounted (ML/MR) X□□:Custom Length

Cable length

Power-saving

Options



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 output (W)	Lead (mm)	Max. Load Capacity Horizontal (kg) Vertical (kg)		Rated thrust (N)	Stroke (mm)
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 Lead	25~200 (every 25mm)
12	600<580>
6	300
3	150

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

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

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

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 cableis the motor-encoder integrated robot cable.

* See page A-59 for cables for maintenance.

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	_

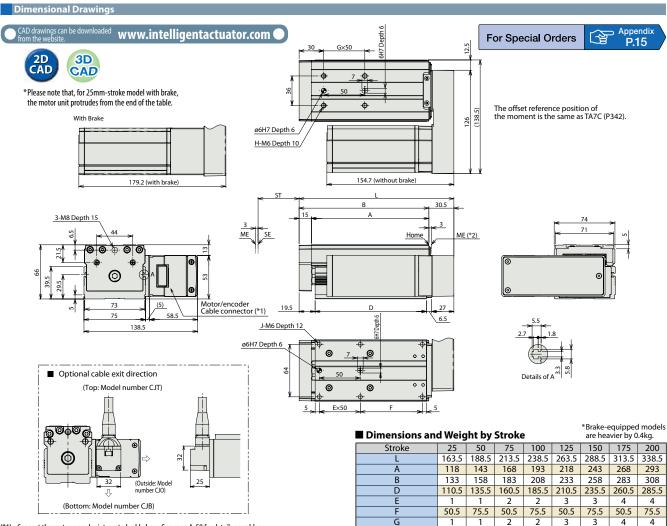
Actuator Specifications

- Tettalite	
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)





Flat Type



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

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

ME: Mechanical end SE: Stroke end

② Applicable Controllers

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

1

4

6

2.6

6

8

2.8

6

8

1

4

6

2.4

G

Н

Weight (kg)

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power- supply capacity	Standard price	Reference page
Colonoid Valva Tuna		AMEC-C-30I①-①-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P537
Solenoid Valve Type	1	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	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	iiii	MSEP-C	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points			_	7 2503
Positioner type	I.	ACON-C-30I①-①-2-0	Positioning is possible for up to 512	E12 points		(Standard) 1.3A rated	_	
Safety-Compliant Positioner Type		ACON-CG-30I①	points	512 points	DC24V	4.4A max. (Power-saving)	_	
Pulse Train Input Type (Differential Line Driver)		ACON-PL-30I①-⑪-2-0	Pulse train input type with differential line driver support	()		1.3A rated 2.2A max.	_	→ P631
Pulse Train Input Type (Open Collector)	e.	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

* This is for the single-axis ASEL.

* Enter the code "LA" in ⊕ when the power-savir

† ⊕ indicates number of axes (1 to 8). † ⊕ indicates field network specification symbol

3

8

10

3.5

4

10

12

3.7

3

8

10

3.3

4

10

12

3.9

RCS2-TCA5N

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

Model Specification Items

RCS2 - TCA5N - IType — Encoder type — Motor type —

60

60:60W Servo

l: Incremental

specification

Lead

5mm

10: 10mm

2.5 : 2.5mm

Stroke 50: 50mm

Applicable controller T1*: XSEL-J/K

*T1 can be selected for absolute specification only.

T2:SCON-CA SSEL

XSEL-P/Q

P: 1m
S: 3m
M:5m
X: : Custom length
R: : Robot cable

Cable length

N: None

Options

See options below.

RoHS *CE compliance is optional.



References

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

Model number	Motor output (W)	Feed Screw	, ,	Max. Load Horizontal (kg)		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCS2-TCA5N-I-60-10-①-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		

■ 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	_

Option code

В

CE

K1

K2

К3

② Cable Length

selectio

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 ③ Options

→ A-42

→ A-42

→ A-51

→ A-51

→ A-51

See page Standard price

ltem	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

RCS2-TCA5N

Name

Connector cable exits from the left

Connector cable exits from the front

Connector cable exits from the right

Brake

CE compliance

7<u>1 (Body)</u>

45.6 (Brake)

For Special Orders

Appenai P.15

Dimensional Drawings

Reference position for the moment offset

4-M5 Depth 12

ø5^{+0.03}Depth 5

CAD drawings can be downloaded www.intelligentactuator.com

ST : Stroke ME : Mechanical End

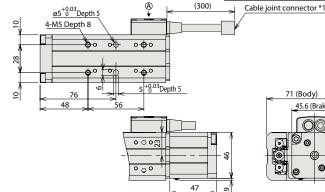


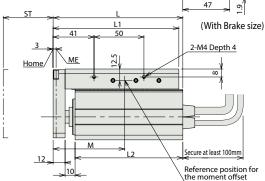
(*1) Connect the motor-encoder integrated cable here. (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.

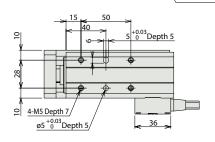
<Different connector cable exit direction> (Option)

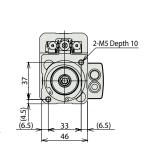
Model number: K1 Model number: K2 Model number: K3 (Exits from the left) (Exits from the front) (Exits from the right)

* View from (A) in the figure above









are heavier by 0.26kg. ■ Dimensions and Weight by Stroke Stroke 50 75 130 155 126 151 12 108 133 M 89 105.5

Weight (kg)

*Brake-equipped models

1.3

1.5

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	F	SCON CA GOLNID 2 (1)	Can be operated with the same controls used for solenoid valves	7 points	Single- phase 100 VAC	218 VA max.	_	DC42
Network mode	Const of the Const		Can be moved by direct numerical specification	768 points	Single- phase	*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		XSEL	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). * ⑩ indicates the XSEL type (P/Q).

(Note) The incremental specification of this model can not be connected to XSEL-J/K, 5 and 6-axis types of XSEL-P/Q, XSEL-R/S, MSCON, and SCON-CAL/CGAL.

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 — TWA5N — Type — Encoder type — Motor type

I: Incremental

specification

60

60:60W Servo

motor

Lead

2.5 : 2.5mm

5mm

Stroke 10: 10mm

50: 50mm 75: 75mm

*T1 can be selected for absolute specification only.

Applicable controller T1*: XSEL-J/K T2:SCON-CA SSEL XSEL-P/Q

N: None

P: 1m
S: 3m
M:5m
X: : Custom length
R: : Robot cable

Cable length

Options

See options below.

CE RoHS *CE compliance is optional.



Technical References



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

Actuator Specifications

■ Leads and Payloads

Model number	Motor output (W)	Feed Screw	, ,	Max. Load Horizontal (kg)		Rated thrust (N)	Positioning repeatability (mm)	Stroke (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	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

⊕ 5ti okc	
Stroke (mm)	Standard price
50	_
75	_

②Cable Length

selection

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.

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	_

Actuator Specifications

ltem	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

65 (Body)

45.6 (Brake)

0

4.5

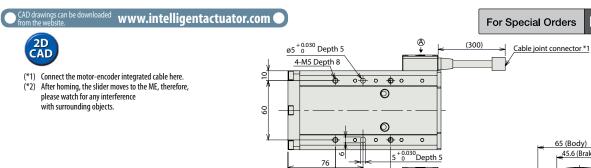
4-M5 Depth 10

EMS Depth 10

*Brake-equipped models

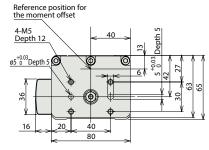
P.15

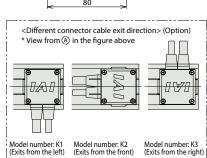
Dimensional Drawings

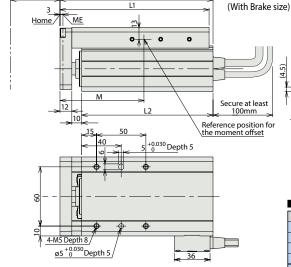


48

ST: Stroke ME: Mechanical End







o đo

40

000

Secure at least 100mm Reference position for the moment offset 12

are heavier by 0.26kg. ■ Dimensions and Weight by Stroke Stroke 50 75 130 155 126 151 108 133 M 89 105.5 Weight (kg) 1.7 2.0

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		SCON CA COLNID 2 ①	Can be operated with the same controls used for solenoid valves	7 points	Single- phase 100 VAC	218 VA max. *Varies depending on the controller. Refer to the operation	_	. DC42
Network mode	in the second		Can be moved by direct numerical specification	768 points	Single- phase 200 VAC			→ P643
Pulse-train input control mode			Can be controlled using pulse trains	(—)			_	
Program control type 1 or 2 axes		SSEL-CS-1-60I-NP-2-①	Program operation is supported Up to two axes can be operated	20,000 points	3-phase 200 VAC (XSEL-P/ Q only)	manual for details.	_	→ P685
Program control type 1 or 6 axes		XSEL-(I)-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). * ⑩ indicates the XSEL type (P/Q).

(Note) The incremental specification of this model can not be connected to XSEL-J/K, 5 and 6-axis types of XSEL-P/Q, XSEL-R/S, MSCON, and SCON-CAL/CGAL.

Table Arm Flat Type

RCS2-TFA5N

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

Model Specification Items

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

RCS2 — TFA5N —

I: Incremental

specification

60 Type — Encoder type — Motor type

60:60W Servo

motor

Lead

5mm

2.5 : 2.5mm

Stroke 10: 10mm

50: 50mm 75: 75mm Applicable controller T1*: XSEL-J/K T2:SCON-CA SSEL

P: 1m
S: 3m
M:5m
X: : Custom length
R: : Robot cable

Cable length

— Options

See options below.

XSEL-P/Q *T1 can be selected for absolute specification only.

N: None

CE RoHS *CE compliance is optional.



Technical References



OIN selection

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

Actuator Specifications

■ Leads and Payloads

Model number	Motor output (W)	Feed Screw	Lead (mm)	Max. Load Horizontal (kg)		Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCS2-TFA5N-I-60-10-①-T2-②-③			10	5	1.5	89		
RCS2-TFA5N-I-60-5-①-T2-②-③	60	Ball screw	5	10	3	178	±0.02	50 75
RCS2-TFA5N-I-60-2.5-①-T2-②-③		screw	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

①Stroke (mm)	Standard price
50	
75	_

② 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.

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	K3	→ A-51	_

Actuator Specifications

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

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

Stroke

12

М

Weight (kg)

50

130

126

108

89

1.4

75

155

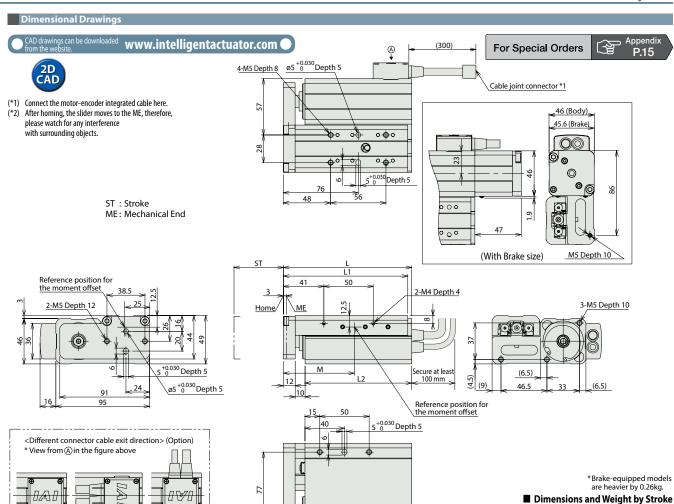
151

133

105.5

1.6

Flat Type



Applicable Controllers

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

4-M5 Depth 7.5

ø5^{+0.030}Depth 5

36

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			SCON CA COL NID 2 (1)	Can be operated with the same controls used for solenoid valves	7 points	Single- phase 100 VAC	se annua	_	. DC42
Network mode	Control Control		Can be moved by direct numerical specification	768 points	Single- phase 200 VAC	*Varies depending on the controller. Refer to the operation	1	→ P643	
Pulse-train input control mode			Can be controlled using pulse trains	(—)			_		
Program control type 1 or 2 axes		SSEL-CS-1-60I-NP-2-①	Program operation is supported Up to two axes can be operated	20,000 points	3-phase 200 VAC (XSEL-P/ Q only)	manual for details.	_	→ P685	
Program control type 1 or 6 axes		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).

(Note) The incremental specification of this model can not be connected to XSEL-J/K, 5 and 6-axis types of XSEL-P/Q, XSEL-R/S, MSCON, and SCON-CAL/CGAL.

RCA-A4R Robo Cylinder, Arm Type, Actuator Width 40mm, 24V Servo Motor, Side-mounted Motor Model Specification Items RCA - A4R20 Series Type — Encoder type — Motor type — Lead Stroke Applicable controller Cable length — Options N: None See options bel P: 1m *Be sure to spe S: 3m which side th M:5m X□□:Custom length R□□: Robot cable (MB/MR/ML) See options below. I: Incremental 20:20W Servo 10:10mm 50: 50mm A1:ACON * Be sure to specify which side the A: Absolute motor 5: 5mm ASEL 200: 200mm A3:AMEC *ASEL can only be used as the absolute encoder. Simple absolute encoders (50mm pitch ASEP

increments)

[C € RoHS





- (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.

MSEP

Actuator Specifications

■ Leads and Pavloads

= Ecuas una l'aylouas							
Model number	Motor	Lead	Max. Load Capacity		Rated	Stroke	
Model Humber	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		5	_	4.5	78.4	(every 50mm)	

are considered incremental.

■ Stroke and Maximum Speed

Stroke Lead	50~200 (every 50mm)
10	330
5	165

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

(Unit: mm/s)

P.5

①Encoder Type/②Stroke

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

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.

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)







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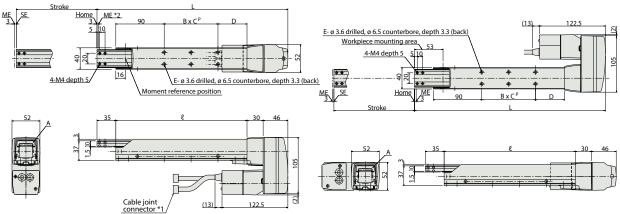
(13)

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

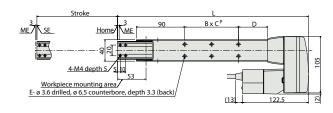
ME: Mechanical end SE: Stroke end

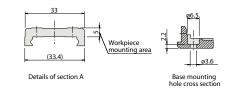
Bottom-mounted motor (option code: MB)

Right-mounted motor (option code: MR)



Left-mounted motor (option code: ML)





■ Dimensions and Weight by Stroke

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

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
61		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
Solenoid valve multi-axis type PIO specification	lund	MSEP-C-10-~-110-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power- saving) 1.3A rated 2.5A max.		→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-10-~	Field network-ready positioner type, allowing up to 8 axes to be connected				_	→ P503
Positioner type	£	ACON-C-20I()-()-2-0	Positioning is possible for up to 512	512 points			_	
Safety-Compliant Positioner Type		ACON-CG-20I () - () - 2-0	points				_	
Pulse Train Input Type (Differential Line Driver)	É	ACON-PL-20I ()-()-2-0	Pulse train input type with differential line driver support	(—)			_	→ P631
Pulse Train Input Type (Open Collector)	è	ACON-PO-20I()-()-2-0	Pulse train input type with open collector support	(—)			_	
Serial Communication Type		ACON-SE-20I -N-0-0	Dedicated Serial Communication	64 points			_	
Program Control Type		ASEL-CS-1-20①①	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).

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

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

Arm/ Flat Type

Model Specification Items

C € RoHS

CA-A5R Robo Cylinder, Arm Type, Actuator Width 52mm, 24V Servo Motor, Side-mounted Motor

RCA - A5RType

20 — Encoder type — Motor type — 1: Incremental 20: 20W Servo

A: Absolute motor *ASEL can only be used as the absolute encoder. Simple absolute encoders are considered incremental.

Lead Stroke

12:12mm

6: 6mm

50: 50mm 200: 200mm

(50mm pitch increments)

Applicable controller A1:ACON ASEL

A3:AMEC ASEP MSEP

Cable length — Options N: None P: 1m S: 3m

See options below.

* Be sure to specify
which side the M:5m motor is to X□□: Custom length be mounted R□□: Robot cable (MB/MR/ML)

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 Pavloads

= Ecaas ana rayioaas						
Model number	Motor	Lead	Max. Load Capacity		Rated	Stroke
Model number	output (W)	(mm)	Horizontal (kg)	Vertical (kg)	thrust (N)	(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)

■ Stroke and Maximum Speed

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

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

(Unit: mm/s)

①Encoder Type/②Stroke

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

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	_
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)







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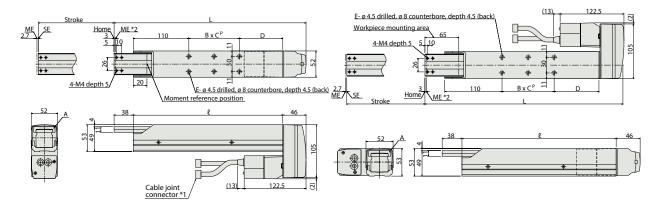


- (*1) Connect the motor and encoder cables here. See page A-59 for details on cables.
- (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects. ME : Mechanical end

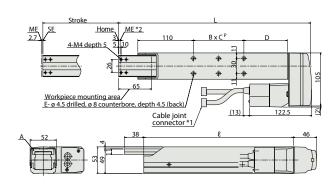
SE : Stroke end

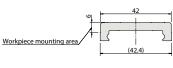
Bottom-mounted motor (option code: MB)

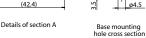
Right-mounted motor (option code: MR)



Left-mounted motor (option code: ML)







■ Dimensions and Weight by Stroke

		9	, -	
Stroke	50	100	150	200
L	280	330	380	430
l	196	246	296	346
B x C ^p	1×30	1×50	2×50	2×50
D	56	86	86	136
E	4	4	6	6
Weight (kg)	2.2	2.4	2.6	2.8

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

③ Applicable Controllers

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

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power- supply capacity	Standard price	Reference page
Solenoid Valve Type		AMEC-C-20I()-()-2-1	Easy-to-use controller, even for beginners		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
Solenoid valve multi-axis type PIO specification	lun	MSEP-C-10-~-110-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected					→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-10-~	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points				7 2003
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 () - () - 2-0	points	312 points	DC24V	(Power-	_	
Pulse Train Input Type (Differential Line Driver)	É	ACON-PL-20I ()-()-2-0	Pulse train input type with differential line driver support	(—)		saving) 1.3A rated 2.5A max.	_	→ P631
Pulse Train Input Type (Open Collector)	è	ACON-PO-20I()-()-2-0	Pulse train input type with open collector support	(—)			_	
Serial Communication Type		ACON-SE-20I -N-0-0	Dedicated Serial Communication	64 points			_	
Program Control Type		ASEL-CS-1-20①①	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).

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

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

Flat Type

RCA-A6R

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

Model Specification Items

RCA - A6RType

— Encoder type — Motor type —

*ASEL can only be used as the absolute encoder. Simple absolute encoders

are considered incremental.

1: Incremental

A: Absolute

30

12: 12mm

6: 6mm

30: 30W Servo

motor

Lead Stroke

50: 50mm

200: 200mm

(50mm pitch

increments)

Applicable controller A1:ACON ASEL

MSEP

 Cable length — Options P: 1m S: 3m A3:AMEC ASEP

See options below.

* Be sure to specify which side the N: None M:5m motor is to

X□□: Custom length be mounted

R□□: Robot cable (MB/MR/ML)

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 Pavloads

Ecuas una l'uylouas							
Model number	Motor	Lead	Max. Load Capacity		Rated	Stroke	
Model number	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)	

■ Stroke and Maximum Speed

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

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

(Unit: mm/s)

①Encoder Type/②Stroke

	Standard price				
②Stroke (mm)	①Encoder Type				
	Incremental	Absolute			
		Α			
50	_	_			
100	_	_			
150	<u>—</u>	-			
200	l	_			

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	_
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

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







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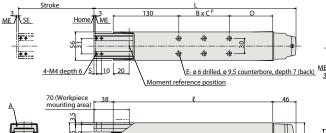


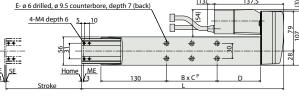
- (*1) Connect the motor and encoder cables here. See page A-59 for details on cables.
 (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.

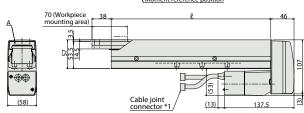
ME : Mechanical end SE: Stroke end

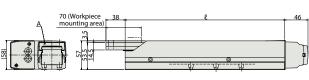
Bottom-mounted motor (option code: MB)

Right-mounted motor (option code: MR) E- ø 6 drilled, ø 9.5 counterbore, depth 7 (back) 4-M4 depth 6

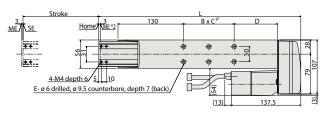


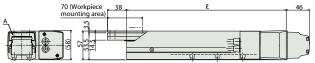


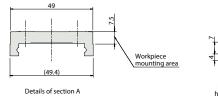




Left-mounted motor (option code: ML)









■ Dimensions and Weight by Stroke

		9	, -	
Stroke	50	100	150	200
L	300	350	400	450
l	216	266	316	366
B x C ^p	1×30	1×50	2×50	2×50
D	56	86	86	136
E	4	4	6	6
Weight (kg)	3.0	3.3	3.6	3.9

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

③ Applicable Controllers

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

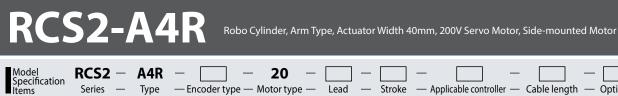
Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power- supply capacity	Standard price	Reference page
Solenoid Valve Type		AMEC-C-30I()-()-2-1	Easy-to-use controller, even for beginners		AC100V	2.4A rated	_	→ P537
Solenoid valve type	1	ASEP-C-30I()-()-2-0	Simple controller operable with the same signal as a solenoid valve	3 points			_	→ P547
Solenoid valve multi-axis type PIO specification	lun	MSEP-C-®-~-®-2-0 Positioner type based on PIO control, allowing up to 8 axes to be connected						→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-10-~	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 2.2A max.		7 2003
Positioner type	-	ACON-C-30I()-()-2-0	Positioning is possible for up to 512 points	512 points (—)			_	
Safety-Compliant Positioner Type		ACON-CG-30I()-()-2-0			DC24V		_	
Pulse Train Input Type (Differential Line Driver)	É	ACON-PL-30I()-()-2-0	Pulse train input type with differential line driver support				_	→ P631
Pulse Train Input Type (Open Collector)	è	ACON-PO-30I()-()-2-0	Pulse train input type with open collector support		(—)			_
Serial Communication Type		ACON-SE-30I -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).

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

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

Flat Type



Type

Encoder type — Motor type — 1: Incremental 20: 20W Servo A: Absolute motor

Lead 10:10mm 5: 5mm

Stroke 50: 50mm

(50mm pitch increments)

200: 200mm

Applicable controller — Cable length — Options T1: XSEL-J/K T2: SCON MSCON SSEL XSEL-P/O

XSEL-R/S

N: None P: 1m S: 3m M:5m X□□: Custom length be mounted R□□: Robot cable (MB/MR/ML)

See options below.

* Be sure to specify which side the motor is to

* See page Pre-47 for details on the model descriptions. $C \in$ 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 Specifications

■ Leads and Pavloads

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

■ Stroke and Maximum Speed

Stroke Lead	50~200 (every 50mm)
10	330
5	165

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

①Encoder Type/②Stroke

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

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)







P.15

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B x C

Dimensional Drawings

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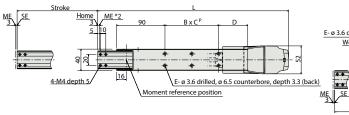


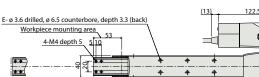
3D CAD

- (*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.

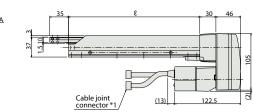
SE : Stroke end ME: Mechanical end

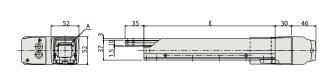
Bottom-mounted motor (option code: MB)



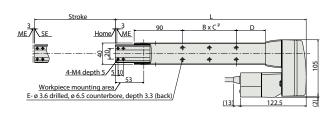


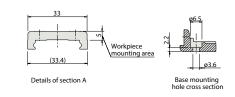
Right-mounted motor (option code: MR)





Left-mounted motor (option code: ML)





■ Dimensions and Weight by Stroke

		5	-,	
Stroke	50	100	150	200
L	255	305	355	405
Ł	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

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		106 VA max. * Power supply capacity will vary depending on the controller, so	106 VA may			
Solenoid valve mode	H	SCON-CA-20(1)-NP-2-(ii)	Actuators can be operated through the same control used for solenoid valves.	7 points				106 VA may		→ P643
Field network type		SCON-CA-20()-INF-2-(I)	Movement by numerical specification is supported.	768 points	Single-phase 100VAC		_	7 1043		
Pulse-train input control type			Dedicated pulse-train input type	(-)	Single-phase 200VAC 3-phase		_			
Positioner multi-axis, network type	田林	MSCON-C-1-20①-②-0-⑪	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	200VAC please reference (XSEL-P/Q/R/S the instruction	please refer to the instruction manual for		→ 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	Pilita	XSEL-(1)-1-20(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.
- *(ii) indicates the power-supply voltage type (1: 100 V / 2: Single-phase 200 V).

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

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

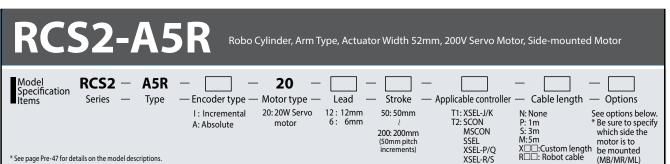
 *(iii) indicates the mover-supply voltage type (1: 100 V / 2: Single-phase 200 V).
- * ① indicates the encoder type (I: Incremental / A: Absolute).

Arm Flat Type

Brake

Left-mounted motor

Non-motor end specification



 $C \in$ 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 Specifications ■ Loods and Dayloods ■ Stroke and Maximum Speed

■ Leads and Payloads						
Model number	Motor output (W)	Lead	Max. Load Capacity		Rated	Stroke
Model Humber		(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) Lead 12 400 6 200 (Unit: mm/s)

Code explanation ① Encoder ② Stroke ③ Applicable Controller ④ Cable

Cable Length	(S) Options	*See page A-71 for details on push motion.	
4 Cable Le	ngth		

①Encoder Type/②Stroke					
	Standard price				
②Stroke (mm)	①Encoder Type				
©Stroke (IIIII)	Incremental	Absolute			
	I	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.

(5) Options Name Option code See page Standard price → A-42 CE compliance CE → A-42 Bottom-mounted motor MB → A-52 Right-mounted motor MR → A-52

ML

NM

→ A-52

→ 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)				







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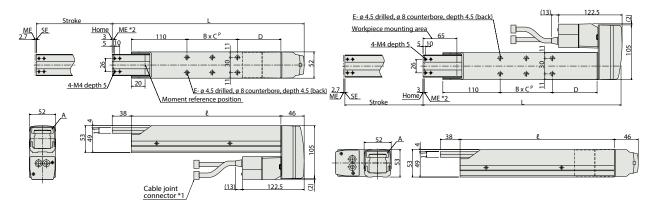


- (*1) Connect the motor and encoder cables here. See page A-59 for details on cables.
- (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.

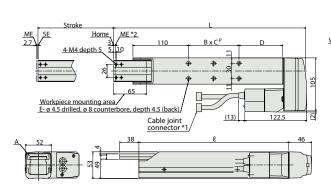
SE: Stroke end ME: Mechanical end

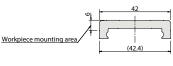
Bottom-mounted motor (option code: MB)

Right-mounted motor (option code: MR)



Left-mounted motor (option code: ML)









■ Dimensions and Weight by Stroke

		_	•	
Stroke	50	100	150	200
L	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 rightor left-mounted motor. Please note that there is no 50mm stroke configuration for the standard model.

③ Applicable Controllers

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

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-20(1)-NP-2-(ii)	Actuators can be operated through the same control used for solenoid valves.	7 points		106 VA max.		→ P643	
Field network type			SCUN-CA-20()-INF-2-(I)	Movement by numerical specification is supported.	768 points	Single-phase 100VAC	*Power supply	_	7 1043
Pulse-train input control type			Dedicated pulse-train input type	(-)	Single-phase 200VAC on the control please (XSEL-P/Q/R/S the ins	capacity will vary depending on the controller, so please refer to	_		
Positioner multi-axis, network type	图核	MSCON-C-1-20①-①-0-①	Up to 6 axes can be operated. Movement by numerical specification is supported.	256 points		the instruction manual for		→ P655	
Program control type, 1 to 2 axes		SSEL-CS-1-20①-NP-2-①	Program operation is supported. Up to 2 axes can be operated.	20000 points		uetaiis.	_	→ P685	
Program control type, 1 to 8 axes	emea	XSEL1-20 N1-EEE-2	Program operation is supported. Up to 8 axes can be operated.	Varies depending on the number of axis connected			_	→ P695	

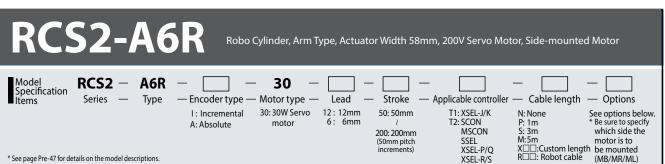
*This is for the single-axis MSCON, SSEL, and XSEL.

* \oplus indicates the power-supply voltage type (1: 100 V / 2: Single-phase 200 V). * \oplus indicates the XSEL type (1/K/P/Q/R/S). * \oplus indicates the power-supply voltage type (1: 100 V / 2: Single-phase 200 V / 3: Three-phase 200 V). * \oplus indicates field network specification symbol.

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

Flat Type

CE



RoHS *CE compliance is optional.

Technical References

selectio

- (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 Pavloads

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

■ Stroke and Maximum Speed

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

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

(Unit: mm/s)

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

Option code

CE

MB

ML

NM

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 Actuator Specifications

See page

→ A-42

→ A-42

→ A-52

→ A-52

→ A-52

→ A-52

Standard price

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

Directions of allowable load moments







Name

Brake

CE compliance

Bottom-mounted motor

Non-motor end specification

Right-mounted motor

Left-mounted motor

Dimensional Drawings

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

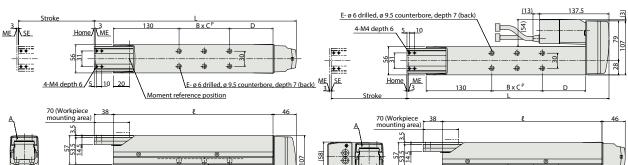
(13)

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

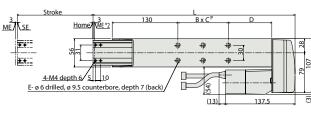
ME: Mechanical end SE: Stroke end

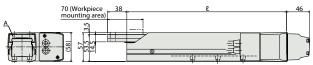
Bottom-mounted motor (option code: MB)

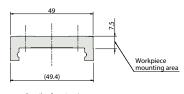
Right-mounted motor (option code: MR)



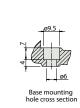
Left-mounted motor (option code: ML)











■ Dimensions and Weight by Stroke

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

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

③ Applicable Controllers

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

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	W	SCON-CA-30(1)-NP-2-(11)	Actuators can be operated through the same control used for solenoid valves.	7 points	126 VA max		→ P643				
Field network type		3CON-CA-30()-NI -2-()	Movement by numerical specification is supported.	768 points	Single-phase 100VAC	100VAC *Power supply capacity will	_	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7			
Pulse-train input control type			Dedicated pulse-train input type	(-)							
Positioner multi-axis, network type	田林	MSCON-C-1-30①-①-0-①	Up to 6 axes can be operated. Movement by numerical specification is supported.	256 points	200VAC ple (XSEL-P/Q/R/S the ONLY) ma		_	→ 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	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.

* (0) indicates the power-supply voltage type (1: 100 V / 2: Single-phase 200 V). * (0) indicates the XSEL type ((1) K / (1) P / (2) R / (2) Single-phase 200 V). * (0) indicates the power-supply voltage type (1: 100 V / 2: Single-phase 200 V). * (0) indicates field network specification symbol.

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

Flat Type

Slider Type

Mini

Standard

Integrated

Roc Type

Mini

Standard

Table

Arm. Flat Type

Min

Gripper/ Rotary Type

> Linear Servo Type

roor Typ

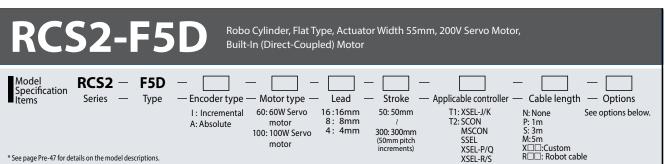
Splash Proo Type

> Pulse Moto

Servo Motor (24V)

Servo Motor (200V)

Linear Servo Motor



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

(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 Speed

Model number	Model number Motor output (W) Horizontal (kg) Vertical (kg)		Rated thrust (N)	Stroke (mm)		
RCS2-F5D-①-60-16-②-③-④-⑤		16		2.0	63.8	
RCS2-F5D-①-60-8-②-③-④-⑤	60	8		5.0	127.5	
RCS2-F5D-①-60-4-②-③-④-⑤		4	See	11.5	255.1	50~300
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	

Stroke Lead	50~300 (every 50mm)
16	800
8	400
4	200
	(Unit: mm/s)

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

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

⑤ Options			
N	0 11 1	_	C
Name	Option code	See page	Standard price
Brake	В	→ A-42	_
CE compliance	CE	→ A-42	_
Non-motor end specification	NM	→ A-52	_

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.

Description
Ball screw, ø12mm, rolled C10
±0.02mm
0.05mm or less
Material: Aluminum, white alumite treated
Ma: 4.5 N·m, Mb: 5.4 N·m, Mc: 4.1 N·m
0 to 40°C, 85% RH or less (Non-condensing)

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



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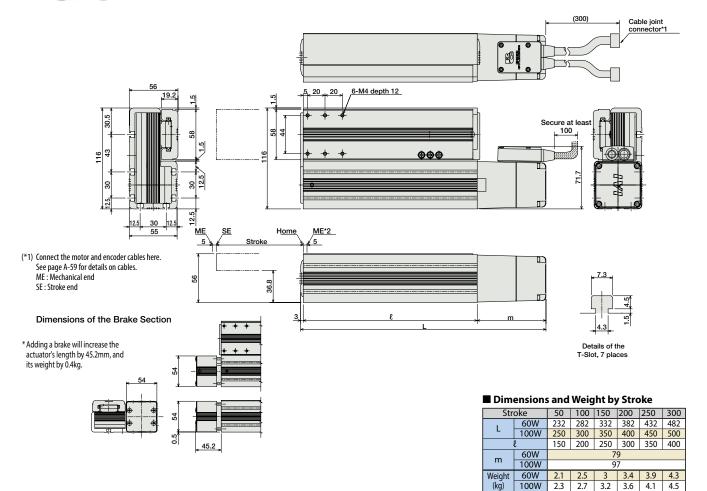
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*To change the direction of the home position, arrangements must be made to send in the product. Please make a note of it.



3 Applicable Controllers

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-60①-NP-2-⑪	Actuators can be operated through the same control used for solenoid valves.	7 points		314 VA max.	214\/A may	_	. 0.42	
Field network type		SCON-CA-100①-NP-2-① Movement by numerical specification is supported.	768 points	Single-phase 100VAC	*Power supply	Refer to P644	→ P643			
Pulse-train input control type			Dedicated pulse-train input type	(-)	Single-phase 200VAC 3-phase	capacity will vary depending on the controller, so	_			
Positioner multi-axis, network type	日本	MSCON-C-1-60①-②-0-⑪ MSCON-C-1-100①-②-0-⑪	Up to 6 axes can be operated. Movement by numerical specification is supported.	256 points	200VAC (XSEL-P/Q/R/S ONLY)		the instruction manual for	the instruction manual for	Refer to P656	→ P655
Program control type, 1 to 2 axes		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	emira	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.

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

Flat Type