

RCA2-TCA3NA

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

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

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



Power-saving



Technical References Appendix P.5



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

Actuator Specifications

Leads and Payloads

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

Stroke and Maximum Speed

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

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

(Unit: mm/s)

① Stroke

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

③ Cable Length

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

* The standard cable for the RCA2 is the robot cable.

* See page A-59 for cables for maintenance.

④ Options

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

Actuator Specifications

Item	Description
Drive System	Ball screw/Lead screw, ø4mm, rolled C10
Lost Motion	Ball screw: 0.1mm or less Lead screw: 0.3mm or less (initial value)
Frame	Material: Aluminum, white alumite treated
Allowable dynamic moment (Note)	Ma: 9.9 N·m, Mb: 9.9 N·m, Mc: 3.3 N·m
Allowable static moment	Ma: 14.1 N·m, Mb: 14.1 N·m, Mc: 6.7 N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification
	Ball screw specification
	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles 5,000km or 50 million cycles (*)

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

(*) For 1mm-lead: 3,000km or 50 million cycles.

Dimensional Drawings

CAD drawings can be downloaded from the website.

www.intelligentactuator.com



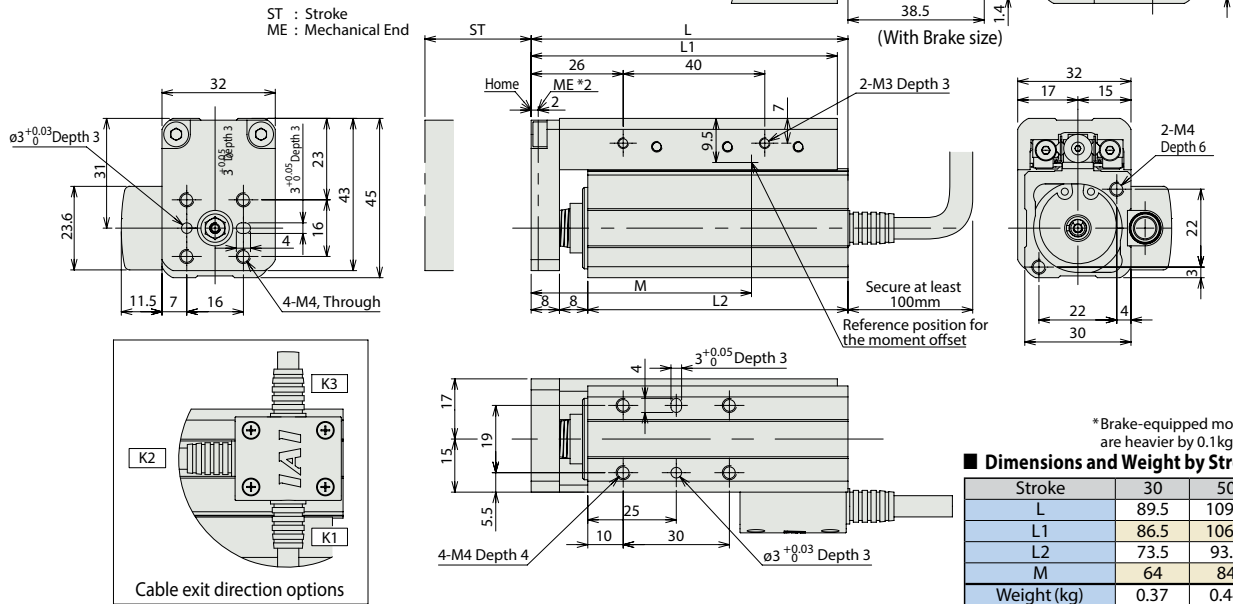
(*1) Connect the motor-encoder integrated cable here.

See page A-59 for details on cables.

(*2) During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end.

Note:

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



② Applicable Controllers

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

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

* This is for the single-axis ASEL.

* Enter the code "LA" in ① when the power-saving specification is specified. * ③ indicates I/O type (NP/PN).

* ④ indicates number of axes (1 to 8). * ⑤ 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	Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
	RCA2	TCA4NA	I	20					
			I: Incremental * The Simple absolute encoder is also considered type "I".	20:20W Servo motor	6: Ball screw 6mm 4: Ball screw 4mm 2: Ball screw 2mm 6S: Lead screw 6mm 4S: Lead screw 4mm 2S: Lead screw 2mm	30: 30mm 50: 50mm	A1: ACON ASEL A3: AMEC ASEP MSEP	N: None P: 1m S: 3m M: 5m X□□: Custom Length	See options below.

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



Power-saving



Technical References Appendix P.5



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

Actuator Specifications

Leads and Payloads

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

Stroke and Maximum Speed

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

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

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

① Stroke

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

③ Cable Length

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

* The standard cable for the RCA2 is the robot cable.

* See page A-59 for cables for maintenance.

④ Options

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

Actuator Specifications

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

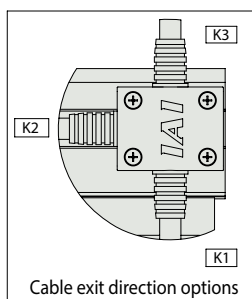
Dimensional Drawings

● CAD drawings can be downloaded from the website.

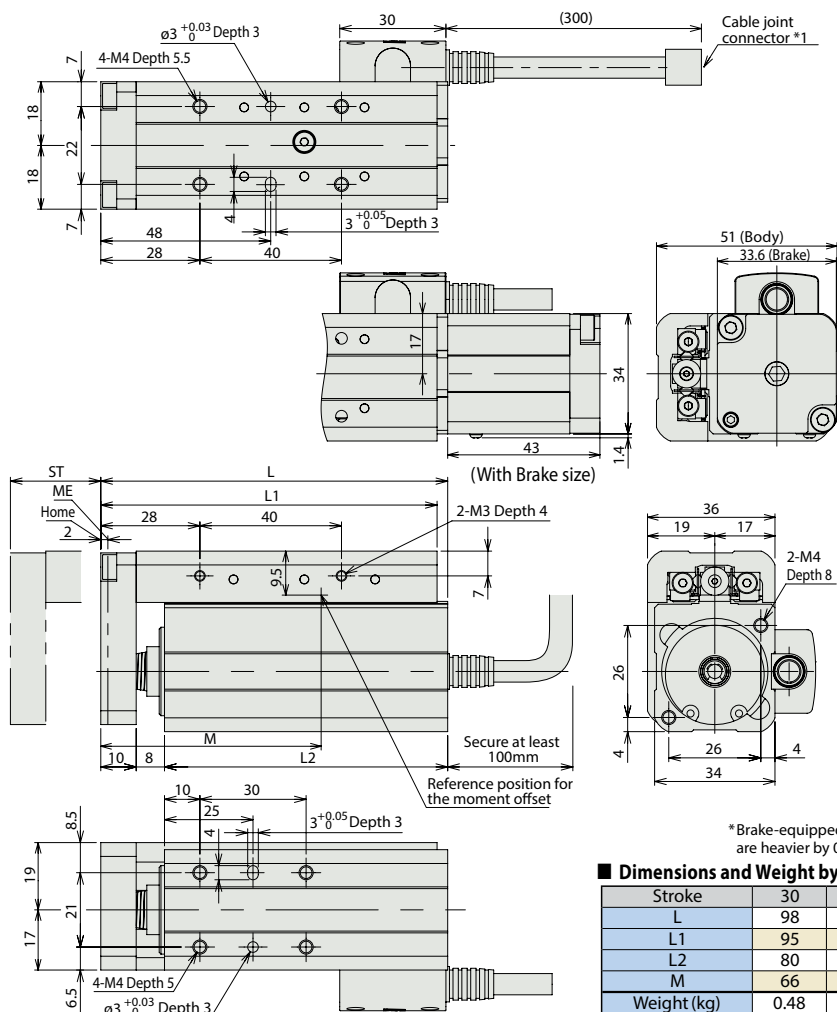
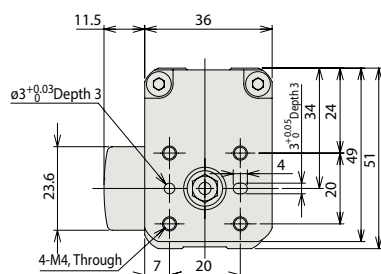
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For Special Orders

Appendix P.15



ST : Stroke
ME : Mechanical End



*Brake-equipped models are heavier by 0.15kg.

■ Dimensions and Weight by Stroke

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

② Applicable Controllers

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

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

* This is for the single-axis ASEL.

* Enter the code "LA" in ① when the power-saving specification is specified. * ③ indicates I/O type (NP/PN).

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

* $\textcircled{II}$ indicates I/O type (NP/PN).

RCA2-TWA3NA

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

Model Specification Items	Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
	RCA2	TWA3NA	I	10					
			I: Incremental * The Simple absolute encoder is also considered type "I".	10: 10W Servo motor	4: Ball screw 4mm 2: Ball screw 2mm 1: Ball screw 1mm 4S: Lead screw 4mm 2S: Lead screw 2mm 1S: Lead screw 1mm	30: 30mm 50: 50mm	A1: ACON ASEL A3: AMEC ASEP MSEP	N: None P: 1m S: 3m M: 5m X□□: Custom Length	See options below.

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



Power-saving

Technical References Appendix P.5



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

Actuator Specifications

Leads and Payloads

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

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

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

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

① Stroke

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

③ Cable Length

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

* The standard cable for the RCA2 is the robot cable.

* See page A-59 for cables for maintenance.

④ Options

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

Actuator Specifications

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

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

(*) For 1mm-lead: 3,000km or 50 million cycles.

Dimensional Drawings

CAD drawings can be downloaded from the website.

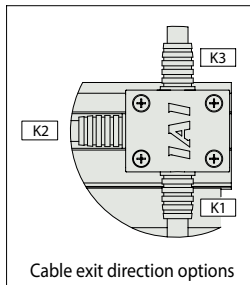
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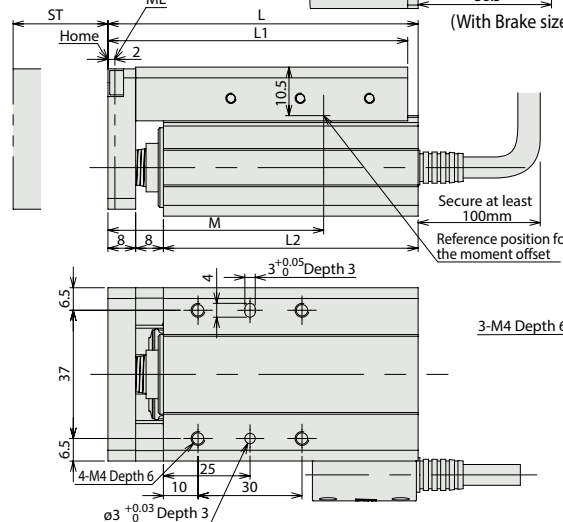
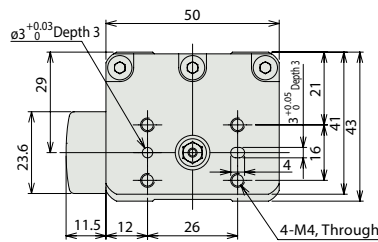
For Special Orders



Appendix P.15



ST : Stroke
ME : Mechanical End



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

* Brake-equipped models are heavier by 0.1kg.

■ Dimensions and Weight by Stroke

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

② Applicable Controllers

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

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		AMEC-C-10I①-②-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P537
		ASEP-C-10I①-②-2-0	Simple controller operable with the same signal as a solenoid valve				—	→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-③-④-⑤-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-③-④-⑥-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected				—	→ P631
Positioner type		ACON-C-10I①-②-2-0	Positioning is possible for up to 512 points	512 points			—	→ P675
Safety-Compliant Positioner Type		ACON-CG-10I①-④-2-0					—	
Pulse Train Input Type (Differential Line Driver)		ACON-PL-10I①-②-2-0	Pulse train input type with differential line driver support	(—)			—	→ P675
Pulse Train Input Type (Open Collector)		ACON-PO-10I①-②-2-0	Pulse train input type with open collector support				—	
Serial Communication Type		ACON-SE-10I①-N-0-0	Dedicated Serial Communication	64 points			—	
Program Control Type		ASEL-CS-1-10I①-②-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			—	→ P675

* This is for the single-axis ASEL. * Enter the code "LA" in ① when the power-saving specification is specified. * ③ indicates I/O type (NP/PN).
* ④ indicates number of axes (1 to 8). * ⑤ indicates field network specification symbol.

RCA2-TWA4NA

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

Model Specification Items	Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
	RCA2	TWA4NA	I	20					
			I: Incremental * The Simple absolute encoder is also considered type "I".	20:20W Servo motor	6: Ball screw 6mm 4: Ball screw 4mm 2: Ball screw 2mm 6S: Lead screw 6mm 4S: Lead screw 4mm 2S: Lead screw 2mm	30: 30mm 50: 50mm	A1: ACON ASEL A3: AMEC ASEP MSEP	N: None P: 1m S: 3m M: 5m X□□: Custom Length	See options below.

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



Power-saving



Technical References Appendix P.5



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

Actuator Specifications

Leads and Payloads

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

Stroke and Maximum Speed

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

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

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

① Stroke

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

③ Cable Length

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

* The standard cable for the RCA2 is the robot cable.

* See page A-59 for cables for maintenance.

④ Options

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

Actuator Specifications

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

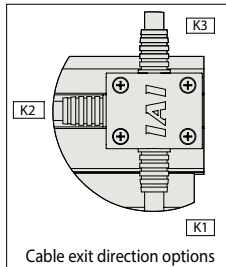
Dimensional Drawings

CAD drawings can be downloaded from the website.

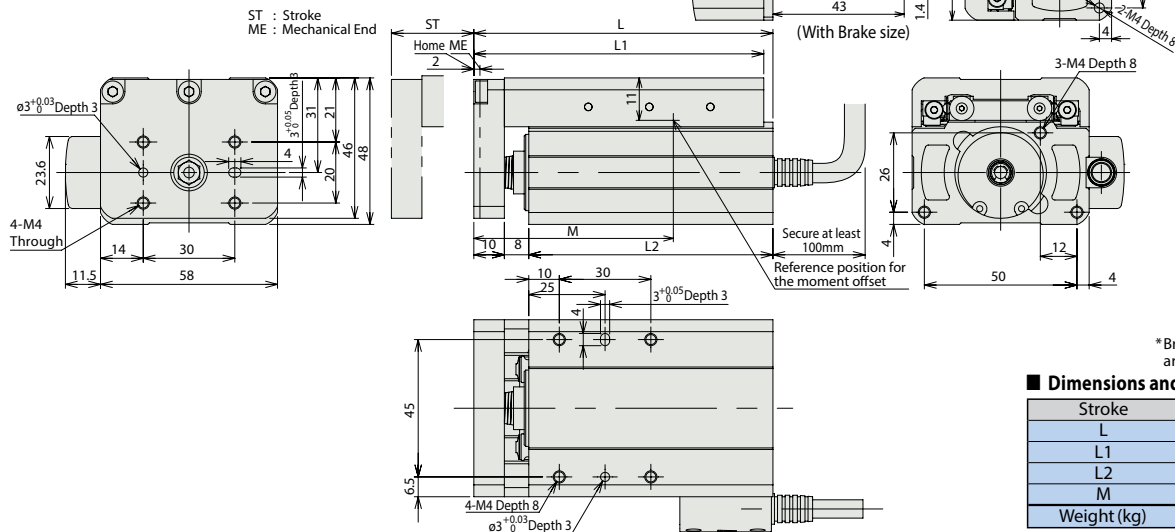
www.intelligentactuator.com



- (*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.



Cable exit direction options



■ Dimensions and Weight by Stroke

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

② Applicable Controllers

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

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

* This is for the single-axis ASEL.

* Enter the code "LA" in ① when the power-saving specification is specified. * ③ indicates I/O type (NP/PN).

* ④ indicates number of axes (1 to 8). * ⑤ 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	Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
	RCA2	TFA3NA	I	10					
			I: Incremental * The Simple absolute encoder is also considered type "I".	10: 10W Servo motor	4: Ball screw 4mm 2: Ball screw 2mm 1: Ball screw 1mm 4S: Lead screw 4mm 2S: Lead screw 2mm 1S: Lead screw 1mm	30: 30mm 50: 50mm	A1: ACON ASEL A3: AMEC ASEP MSEP	N: None P: 1m S: 3m M: 5m X□□: Custom Length	See options below.

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



Power-saving

Technical References Appendix P.5



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

Actuator Specifications

Leads and Payloads

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

Stroke and Maximum Speed

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

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

(Unit: mm/s)

① Stroke

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

③ Cable Length

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

* The standard cable for the RCA2 is the robot cable.

* See page A-59 for cables for maintenance.

④ Options

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

Actuator Specifications

Item	Description
Drive System	Ball screw/Lead screw, ø4mm, rolled C10
Lost Motion	Ball screw: 0.1mm or less Lead screw: 0.3mm or less (initial value)
Frame	Material: Aluminum, white alumite treated
Allowable dynamic moment (Note)	Ma: 9.9 N·m, Mb: 9.9 N·m, Mc: 3.3 N·m
Allowable static moment	Ma: 14.1 N·m, Mb: 14.1 N·m, Mc: 6.7 N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	Lead screw specification
	Ball screw specification
	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles 5,000km or 50 million cycles (*)

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

(*) For 1mm-lead: 3,000km or 50 million cycles.

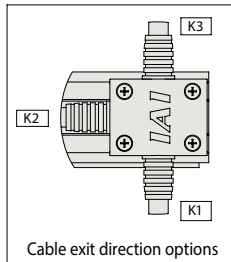
Dimensional Drawings

CAD drawings can be downloaded from the website.

www.intelligentactuator.com

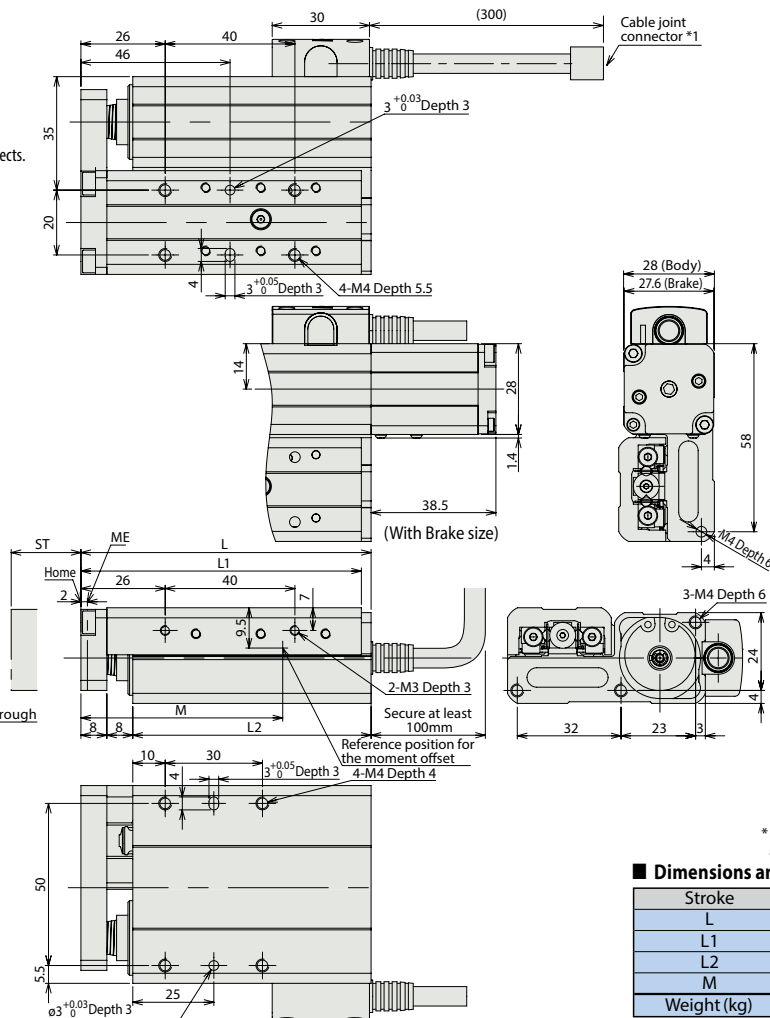
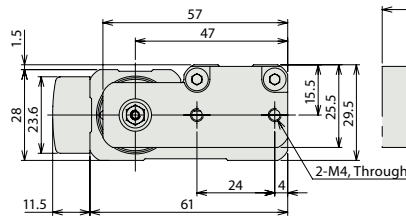


- (*1) Connect the motor-encoder integrated cable here.
See page A-59 for details on cables.
(*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.



Cable exit direction options

ST : Stroke
ME : Mechanical End



*Brake-equipped models are heavier by 0.1kg.

■ Dimensions and Weight by Stroke

Stroke	30	50
L	89.5	109.5
L1	86.5	106.5
L2	73.5	93.5
M	64	84
Weight (kg)	0.4	0.48

② Applicable Controllers

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

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

* This is for the single-axis ASEL. * Enter the code "LA" in ① when the power-saving specification is specified. * ③ indicates I/O type (NP/PN).
* ④ indicates number of axes (1 to 8). * ⑤ indicates field network specification symbol.

RCA2-TFA4NA

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

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

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



Power-saving

Technical References Appendix P.5



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

Actuator Specifications

Leads and Payloads

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

Stroke and Maximum Speed

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

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

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

① Stroke

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

③ Cable Length

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

* The standard cable for the RCA2 is the robot cable.

* See page A-59 for cables for maintenance.

④ Options

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

Actuator Specifications

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

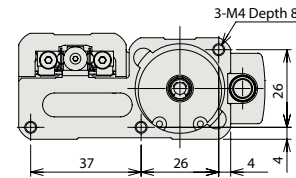
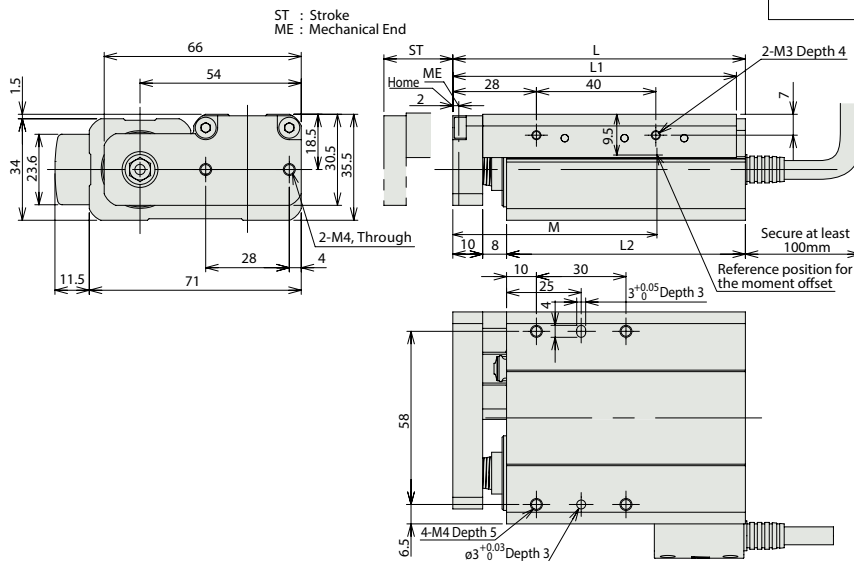
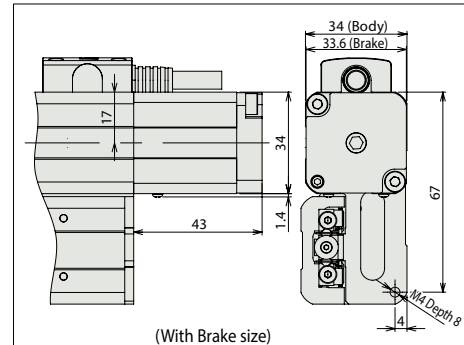
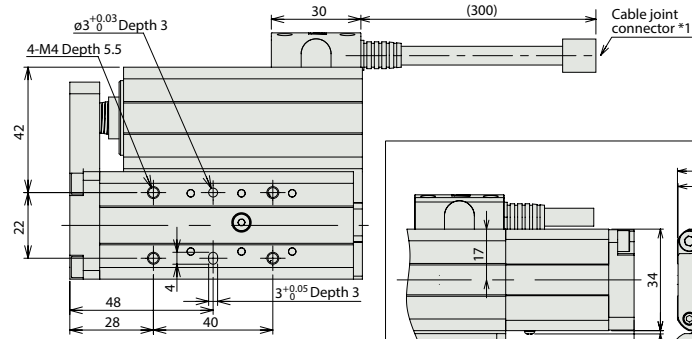
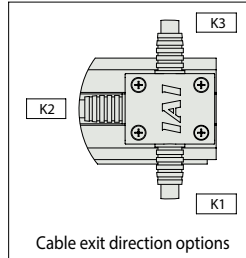
(Note) For cases when the guide service life has been set to 5,000km.

Dimensional Drawings

CAD drawings can be downloaded from the website. 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.



*Brake-equipped models are heavier by 0.15kg.

■ Dimensions and Weight by Stroke

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

② Applicable Controllers

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

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		AMEC-C-20I①-②-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P537
		ASEP-C-20I①-②-2-0	Simple controller operable with the same signal as a solenoid valve				—	→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-③-④-⑤-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-③-④-⑥-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected				—	→ P563
Positioner type		ACON-C-20I①-②-2-0	Positioning is possible for up to 512 points	512 points			—	→ P631
Safety-Compliant Positioner Type		ACON-CG-20I①-④-2-0					—	
Pulse Train Input Type (Differential Line Driver)		ACON-PL-20I①-③-2-0	Pulse train input type with differential line driver support	(—)			—	
Pulse Train Input Type (Open Collector)		ACON-PO-20I①-③-2-0	Pulse train input type with open collector support				—	
Serial Communication Type		ACON-SE-20I①-N-0-0	Dedicated Serial Communication	64 points			—	→ P675
Program Control Type		ASEL-CS-1-20I①-③-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			—	

* This is for the single-axis ASEL. * Enter the code "LA" in ① when the power-saving specification is specified. * ③ indicates I/O type (NP/PN).
* ④ indicates number of axes (1 to 8). * ⑤ indicates field network specification symbol.

RCA2-TA4C

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

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

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



Power-saving



Photo above shows the TA3C.

Technical References

Appendix P.5



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

Actuator Specifications

Leads and Payloads

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

Stroke and Maximum Speed

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

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

(Unit: mm/s)

① Stroke

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

③ Cable Length

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

* The standard cable for the RCA2 is the robot cable.

* See page A-59 for cables for maintenance.

④ Options

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

Actuator Specifications

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

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

Directions of allowable load moments



Dimensional Drawings

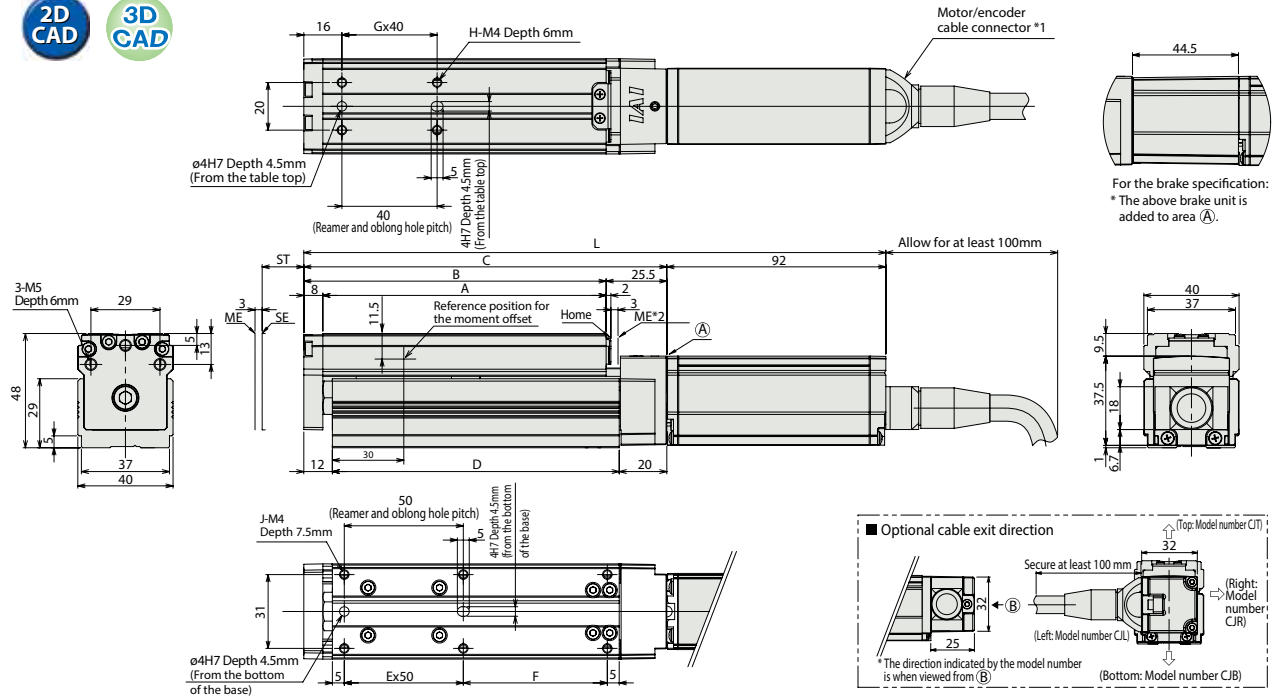
CAD drawings can be downloaded from the website.

www.intelligentactuator.com



For Special Orders

Appendix P.15



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

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

ST : Stroke

ME : Mechanical end

SE : Stroke end

Dimensions and Weight by Stroke

*Brake-equipped models are heavier by 0.2kg.

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

Applicable Controllers

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

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

* This is for the single-axis ASEL.

* Enter the code "LA" in ① when the power-saving specification is specified.

* ③ indicates I/O type (NP/PN).

* ④ indicates number of axes (1 to 8).

* ⑤ indicates field network specification symbol.

RCA2-TA5C

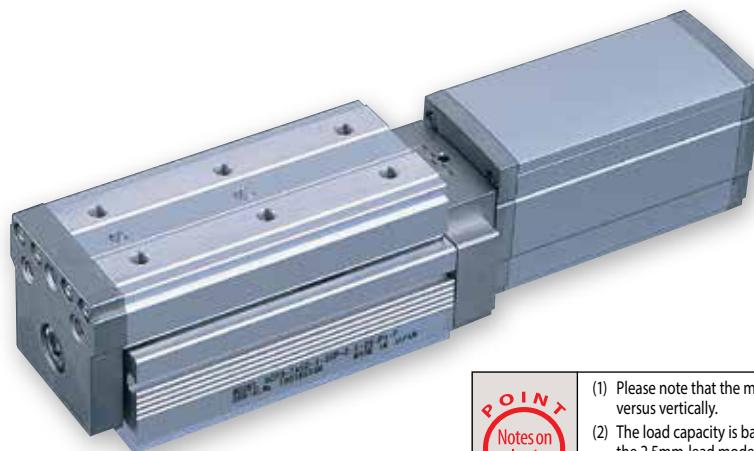
Robo Cylinder, Table Type, Actuator Width 55mm, Servo Motor, Coupled

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

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



Power-saving



Technical References Appendix P.5



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

Actuator Specifications

Leads and Payloads

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

Stroke and Maximum Speed

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

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

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

① Stroke

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

③ Cable Length

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

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

④ Options

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

Actuator Specifications

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

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

Directions of allowable load moments



Dimensional Drawings

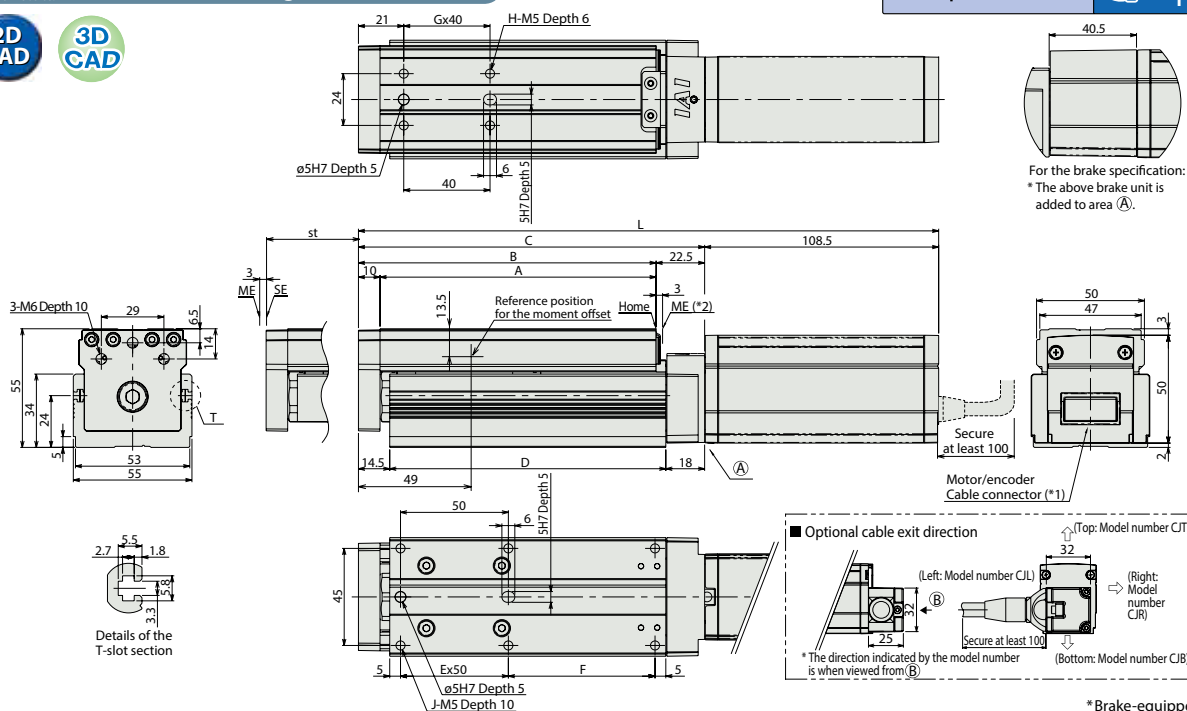
CAD drawings can be downloaded from the website.

www.intelligentactuator.com



For Special Orders

Appendix P.15



*Brake-equipped models are heavier by 0.3kg.

■ Dimensions and Weight by Stroke

		25	50	75	100
L	Stroke	244	269	294	319
	Without brake	284.5	309.5	334.5	359.5
	With brake	103	128	153	178
	A	113	138	163	188
	B	135.5	160.5	185.5	210.5
	C	103	128	153	178
	D	1	1	2	2
	E	43	68	43	68
	F	1	1	2	2
	G	4	4	6	6
	H	6	6	8	8
	J	1.2	1.4	1.5	1.7
	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 Applicable Controllers

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

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

* This is for the single-axis ASEL.

* 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).

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

* $\textcircled{\parallel}$ indicates I/O type (NP/PN).

RCA2-TA6C

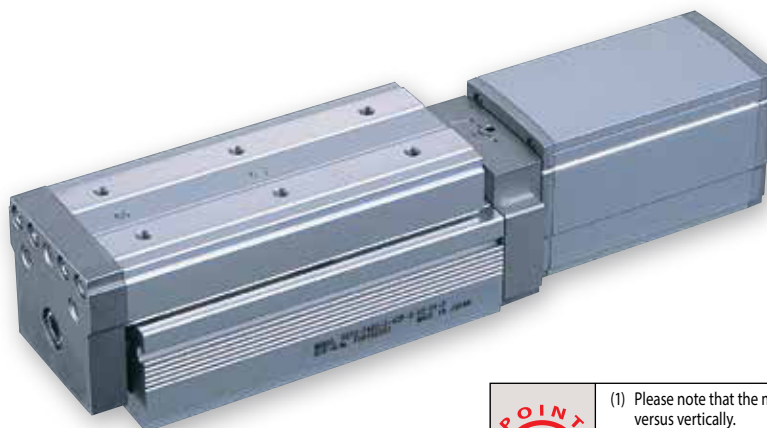
Robo Cylinder, Table Type, Actuator Width 65mm, Servo Motor, Coupled

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

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



Power-saving



Technical References Appendix P.5



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

Actuator Specifications

Leads and Payloads

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

Stroke and Maximum Speed

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

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

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

① Stroke

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

③ Cable Length

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

* The standard cable for the RCA2 is the robot cable.

* See page A-59 for cables for maintenance.

④ Options

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

Actuator Specifications

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

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

Directions of allowable load moments



Dimensional Drawings

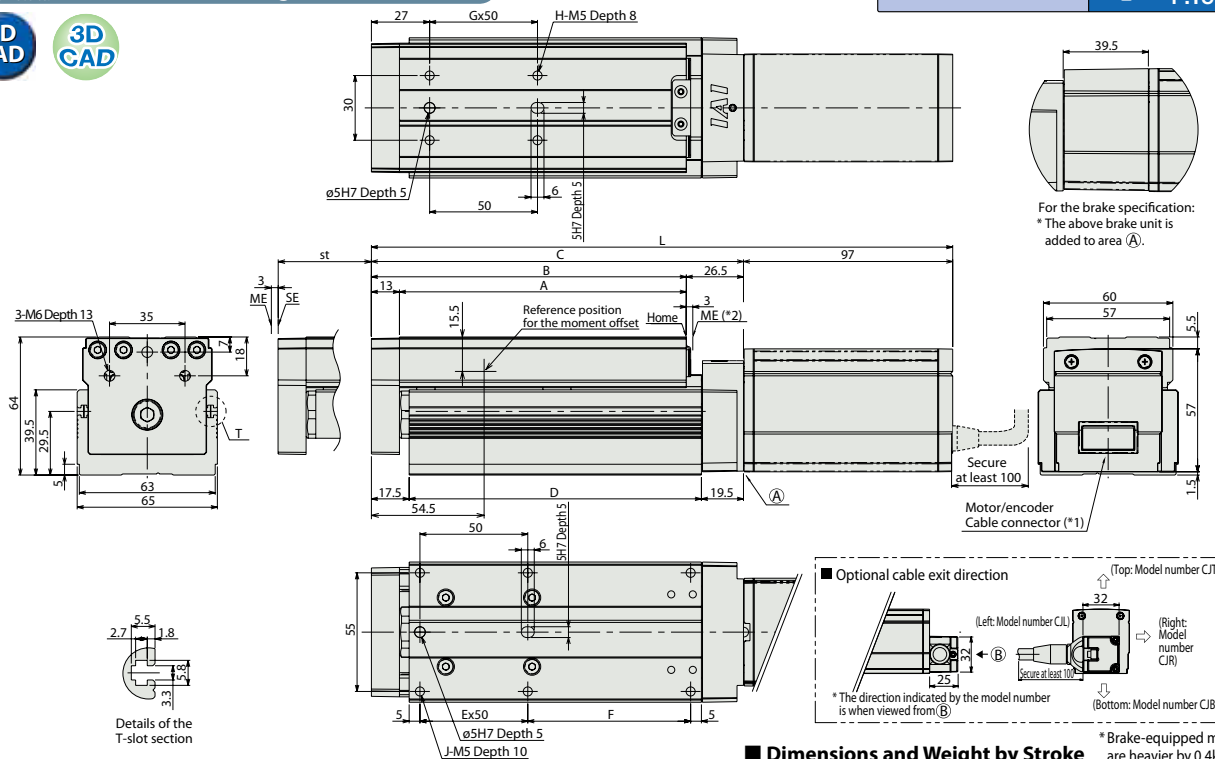
CAD drawings can be downloaded from the website.

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For Special Orders

Appendix P.15



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

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

ME : Mechanical end SE : Stroke end

■ Dimensions and Weight by Stroke

*Brake-equipped models are heavier by 0.4kg.

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

② Applicable Controllers

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

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

* This is for the single-axis ASEL.

* Enter the code "LA" in ① when the power-saving specification is specified. * ② indicates I/O type (NP/PN).

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

* $\textcircled{\parallel}$ indicates I/O type (NP/PN).

RCA2-TA7C

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

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

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


Power-saving

Technical References Appendix P.5


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

Actuator Specifications

Leads and Payloads

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

Stroke and Maximum Speed

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

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

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

① Stroke

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

③ Cable Length

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

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

④ Options

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

Actuator Specifications

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

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

Directions of allowable load moments



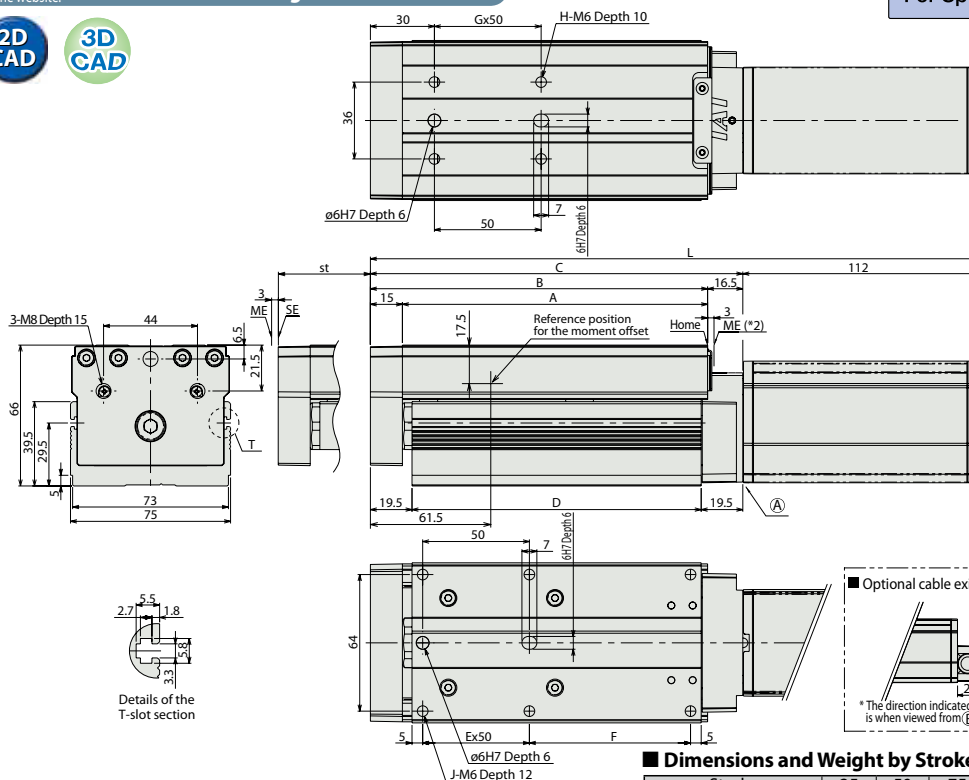
Dimensional Drawings

CAD drawings can be downloaded from the website.

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For Special Orders

Appendix
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*The above brake unit is added to area (A).

Diagram illustrating the four ways to identify the model number of a JCB:

- (Left: Model number CJL)
- (Top: Model number CJT)
- (Right: Model number CJR)
- (Bottom: Model number CJB)

Secure at least 100

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

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

ME : Mechanical end SE : Stroke end

② Applicable Controllers

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

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

* This is for the single-axis ASEL.

* 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).

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

* $\textcircled{\text{II}}$ indicates I/O type (NP/PN).

RCA2-TA4R

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

Model Specification Items	RCA2	TA4R	I	10					
Series		Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
			I: Incremental * The Simple absolute encoder is also considered type "I".	10: 10W Servo motor	6: 6mm 4: 4mm 2: 2mm	20: 20mm ? 100: 100mm (10mm pitch increments)	A1: ACON ASEL A3: AMEC ASEP MSEP	N: None P: 1m S: 3m M: 5m X□□: Custom Length	See options below. * Be sure to specify which side the motor is to be mounted (ML/MR)

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



Power-saving



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

Technical References

Appendix P.5



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

Actuator Specifications

Leads and Payloads

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

Stroke and Maximum Speed

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

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

(Unit: mm/s)

① Stroke

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

③ Cable Length

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

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

④ Options

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

Actuator Specifications

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

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

Directions of allowable load moments



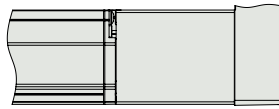
Dimensional Drawings

CAD drawings can be downloaded from the website.

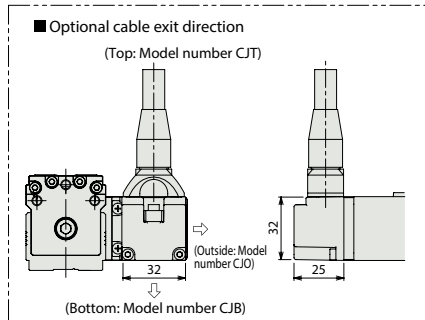
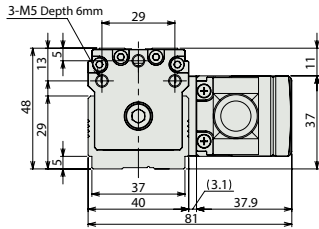
www.intelligentactuator.com



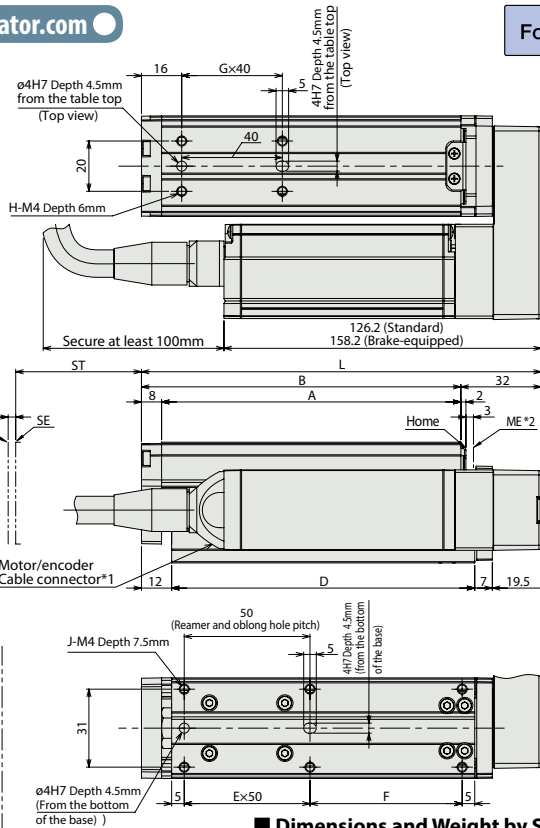
* The diagram below shows a left-mounted motor model.



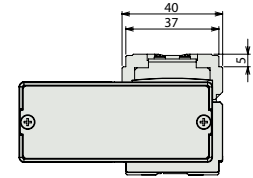
With the brake:
(see drawing on the right for dimensions)



(*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.



The offset reference position of the moment is the same as TA4C (P336).



ST : Stroke
ME : Mechanical end
SE : Stroke end

* Brake-equipped models are heavier by 0.2kg.

Dimensions and Weight by Stroke

Stroke	20	30	40	50	60	70	80	90	100
L	129	139	149	159	169	179	189	199	209
A	89	99	109	119	129	139	149	159	169
B	97	107	117	127	137	147	157	167	177
D	90.5	100.5	110.5	120.5	130.5	140.5	150.5	160.5	170.5
E	1	1	1	1	2	2	2	2	2
F	30.5	40.5	50.5	60.5	20.5	30.5	40.5	50.5	60.5
G	1	1	1	1	2	2	2	2	2
H	4	4	4	4	6	6	6	6	6
J	6	6	6	6	8	8	8	8	8
Weight (kg)	0.8	0.9	0.9	0.9	1.0	1.0	1.0	1.1	1.1

Applicable Controllers

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

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

* This is for the single-axis ASEL. * Enter the code "LA" in ① when the power-saving specification is specified. * ③ indicates I/O type (NP/PN).
* ④ indicates number of axes (1 to 8). * ⑤ indicates field network specification symbol.

RCA2-TA5R

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

Model Specification Items	RCA2	TA5R	I	20					
Series		Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
			I: Incremental * The Simple absolute encoder is also considered type "I".	20: 20W Servo motor	10: 10mm 5: 5mm 2.5: 2.5mm	25: 25mm 100: 100mm (25mm pitch increments)	A1: ACON ASEL A3: AMEC ASEP MSEP	N: None P: 1m S: 3m M: 5m X□□: Custom Length	See options below. * Be sure to specify which side the motor is to be mounted (ML/MR)

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



Power-saving



Technical References Appendix P.5



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

Actuator Specifications

Leads and Payloads

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

Stroke and Maximum Speed

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

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

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

① Stroke

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

③ Cable Length

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

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

④ Options

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

Actuator Specifications

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

Directions of allowable load moments



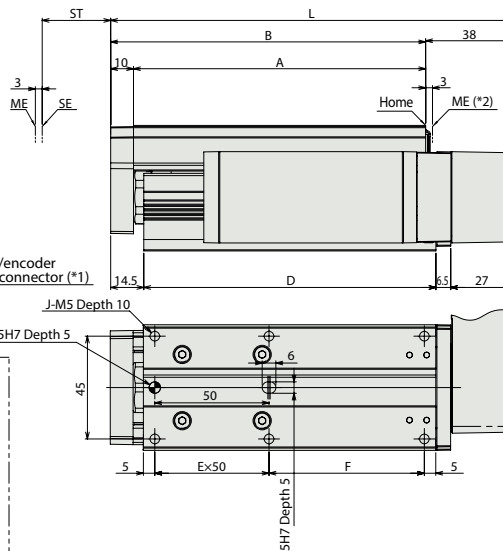
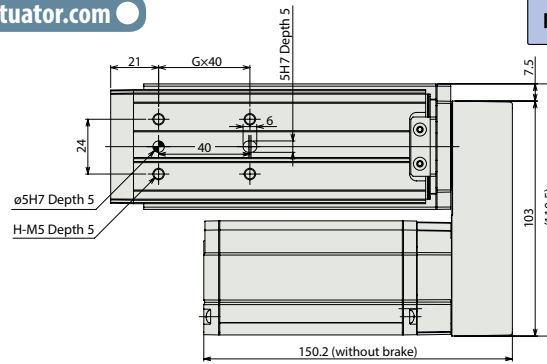
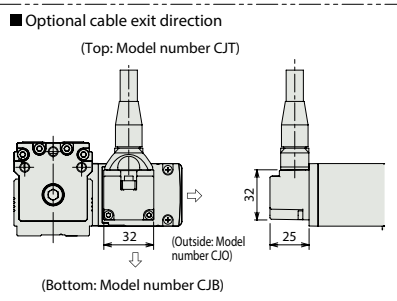
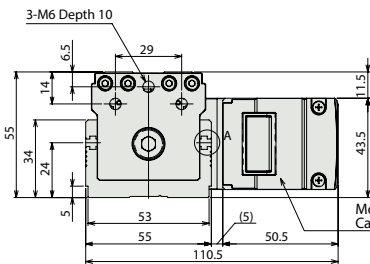
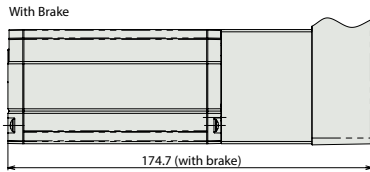
Dimensional Drawings

CAD drawings can be downloaded from the website.

www.intelligentactuator.com



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



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

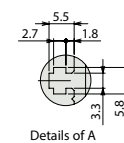
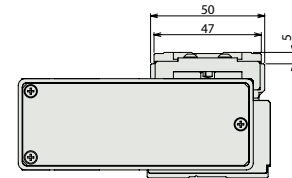
(*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.
ME : Mechanical end SE : Stroke end

For Special Orders



Appendix P.15

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



*Brake-equipped models are heavier by 0.3kg.

Stroke	25	50	75	100
L	151	176	201	226
A	103	128	153	178
B	113	138	163	188
D	103	128	153	178
E	1	1	2	2
F	43	68	43	68
G	1	1	2	2
H	4	4	6	6
J	6	6	8	8
Weight (kg)	1.4	1.6	1.7	1.9

② Applicable Controllers

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

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

* This is for the single-axis ASEL. * Enter the code "LA" in ① when the power-saving specification is specified. * ③ indicates I/O type (NP/PN).
* ④ indicates number of axes (1 to 8). * ⑤ indicates field network specification symbol.

RCA2-TA6R

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

Model Specification Items	RCA2	TA6R	I	20					
Series		Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
			I: Incremental * The Simple absolute encoder is also considered type "I".	20: 20W Servo motor	12: 12mm 6: 6mm 3: 3mm	25: 25mm 150: 150mm (25mm pitch increments)	A1: ACON ASEL A3: AMEC ASEP MSEP	N: None P: 1m S: 3m M: 5m X□□: Custom Length	See options below. * Be sure to specify which side the motor is to be mounted (ML/MR)

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



Power-saving



Technical References

Appendix P.5



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

Actuator Specifications

Leads and Payloads

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

Stroke and Maximum Speed

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

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

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

① Stroke

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

③ Cable Length

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

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

④ Options

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

Actuator Specifications

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

Directions of allowable load moments



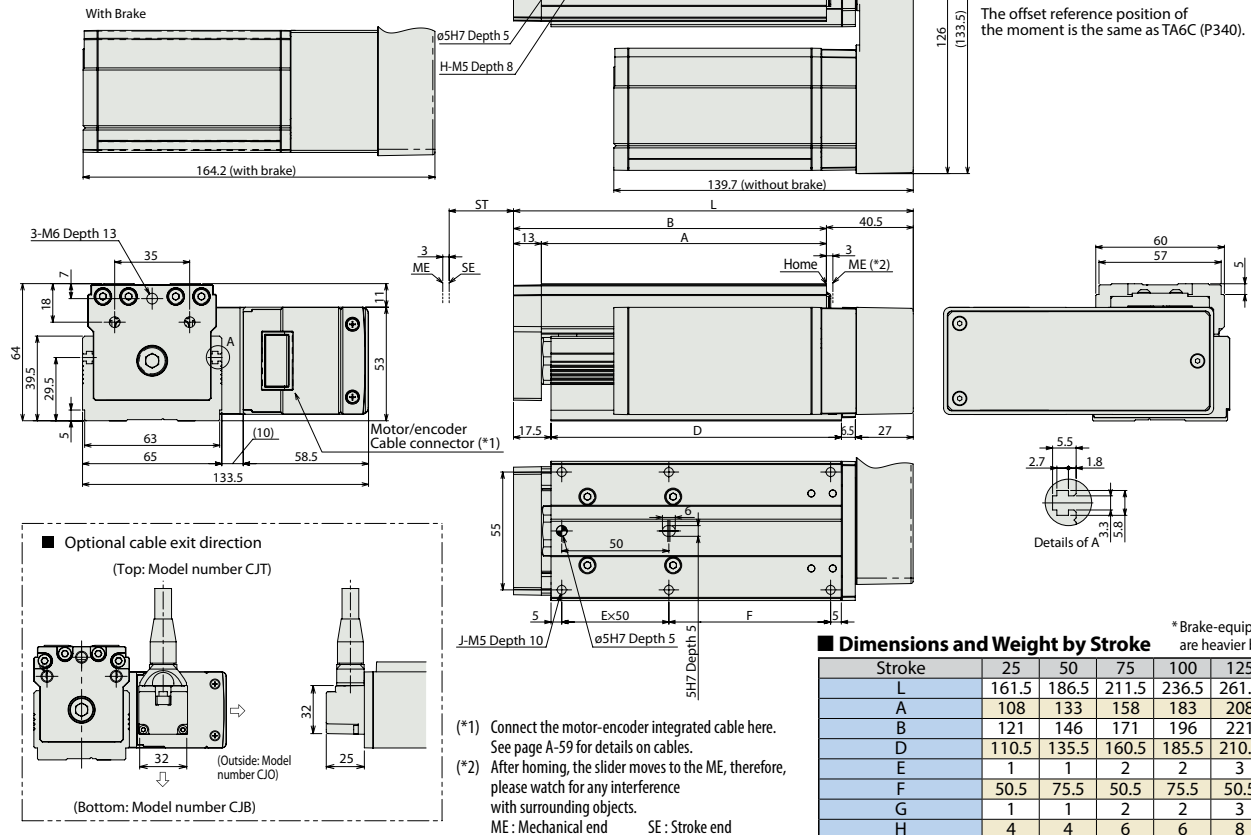
Dimensional Drawings

CAD drawings can be downloaded from the website.

www.intelligentactuator.com



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



Dimensions and Weight by Stroke

* Brake-equipped models are heavier by 0.4kg.

Stroke	25	50	75	100	125	150
L	161.5	186.5	211.5	236.5	261.5	286.5
A	108	133	158	183	208	233
B	121	146	171	196	221	246
D	110.5	135.5	160.5	185.5	210.5	235.5
E	1	1	2	2	3	3
F	50.5	75.5	50.5	75.5	50.5	75.5
G	1	1	2	2	3	3
H	4	4	6	6	8	8
J	6	6	8	8	10	10
Weight (kg)	2.1	2.3	2.5	2.7	2.9	3.1

Applicable Controllers

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

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

* This is for the single-axis ASEL. * Enter the code "LA" in ① when the power-saving specification is specified. * ③ indicates I/O type (NP/PN).
* ④ indicates number of axes (1 to 8). * ⑤ indicates field network specification symbol.

RCA2-TA7R

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

Model Specification Items	RCA2	TA7R	I	30					
Series		Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
			I: Incremental * The Simple absolute encoder is also considered type "I".	30: 30W Servo motor	12: 12mm 6: 6mm 3: 3mm	25: 25mm 200: 200mm (25mm pitch increments)	A1: ACON ASEL A3: AMEC ASEP MSEP	N: None P: 1m S: 3m M: 5m X□□: Custom Length	See options below. * Be sure to specify which side the motor is to be mounted (ML/MR)

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



Power-saving



Technical References Appendix P.5

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

Actuator Specifications

Leads and Payloads

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

Stroke and Maximum Speed

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

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

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

① Stroke

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

③ Cable Length

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

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

④ Options

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

Actuator Specifications

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

Directions of allowable load moments



