

RCA2-RN3N

ROBO Cylinder Mini Rod type Short Length Fixed Nut type Actuator Width 28mm 24V servo motor Lead screw specification

■ Model Description **RCA2** – **RN3N** – **I** – **10** – – **30** – – –

Series – Type – Encoder type – Motor type – Lead – Stroke – Compatible Controllers – Cable length – Option

I: Incremental specification
* Model number is "I" when used with simple absolute unit.

10: Servo Motor 10W

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

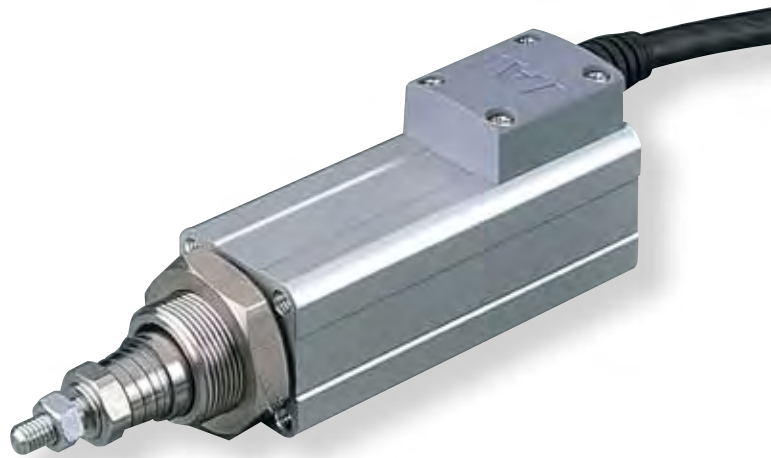
30: 30mm

A1: ACON
RACON
ASEL
A3: ASEP

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

Following options Refer to price table

*See page 11 for details on the model descriptions.



POINT
Notes on selection

- The lead screw is not equipped with an anti-rotation device, so please attach a guide or similar locking device to the tip of the lead screw prior to use. (If there is no anti-rotation device attached, the lead screw cannot extend or retract.)
- The load capacity is the value when operated at 0.2G acceleration. Acceleration limit is value indicated above.
- Do not apply an external force on the rod in any direction other than the direction the rod is moving in.

Actuator Specification Table

Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload		Rated thrust (N)	Positioning Repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
RCA2-RN3N-I-10-4S-30-①-②-③	10	Lead screw	4	0.25	0.125	25.1	±0.05	30 (Fixed)
RCA2-RN3N-I-10-2S-30-①-②-③			2	0.5	0.25	50.3		
RCA2-RN3N-I-10-1S-30-①-②-③			1	1	0.5	100.5		

Legend ① Compatible Controllers ② Cable length ③ Option

Stroke and Maximum Speed

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

(Unit = mm/s)

Price list (by stroke)

Stroke (mm)	Type code
	RN3N
	Encoder type
	Incremental
	Feed screw
Lead screw	
30	–

(2) Cable length (price chart)

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

* Robot type cable comes as standard with the RCA2 actuator.
* See page 113 for maintenance cables.

(3) Option price list (standard price)

Title	Option code	See page	Standard price
Change the cable connector outlet direction	K2	→P30	–

Actuator Specification

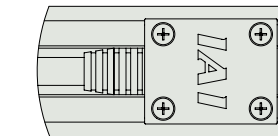
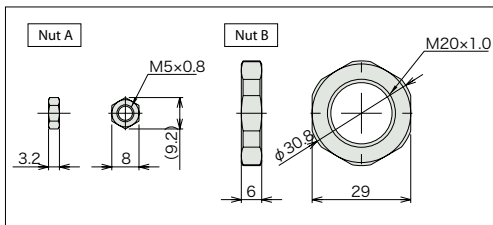
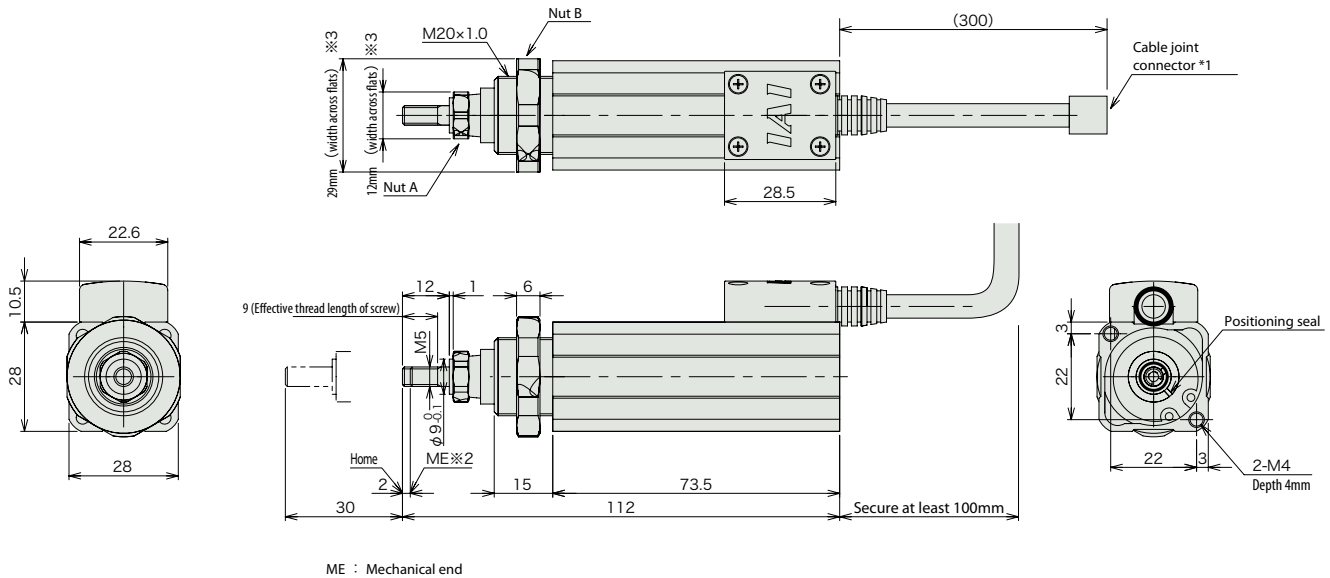
Item	Description
Drive System	Lead screw, φ4mm, rolled C10
Backlash	0.3mm or less (initial value)
Frame	Material: Aluminum, white alumite treated
Ambient operating temperature, humidity	0 to 40 °C, 85% RH or less (no condensation)
Service life	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles

Dimensional Drawings

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



- *1 Connect the motor and encoder cables. See page 113 for cable details.
- *2 During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end.
- *3 The orientation of the plane of the width between two faces varies according to the product.



Changing cable connector outlet direction (Model : K2)
* Rotate 180° relative to standard specification.

■ Dimensions and Weight by Stroke

Stroke	30
Mass (kg)	0.25

Compatible Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

Title	External View	Model	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference Page
Solenoid valve type		PSEP-C-20PI-NP-2-0	Simple controller capable of operating with the same signal as the solenoid valve Supports the use of both the single solenoid and the double solenoid types	3 points	DC24V	See P109.	-	→P101
		PSEP-CW-20PI-NP-2-0	Simple Absolute type makes the return to home unnecessary.				-	
Positioner type		PCON-□-20PI-NP-2-0 (Note 1)	Up to 512-points positioning possible By attaching a simple absolute unit (sold separately), the return to home becomes unnecessary.	512 points			-	See the ROBO Cylinder general catalog.
Program type		PSEL-C-1-20PI-NP-2-0	Programmable type Capable of operating up to 2 axes Simple Absolute unit cannot be used.	1500 points	-			

(Note 1) ACON can be used with C/CG/CY/PL/PO/SE type. Also, ROBONET can be used.

Mini Slider type
Mini Rod type
Mini Table type
Mini Linear Servo type
Controller
Compact
Wide
Flat
Coupling
Reverse-mounted

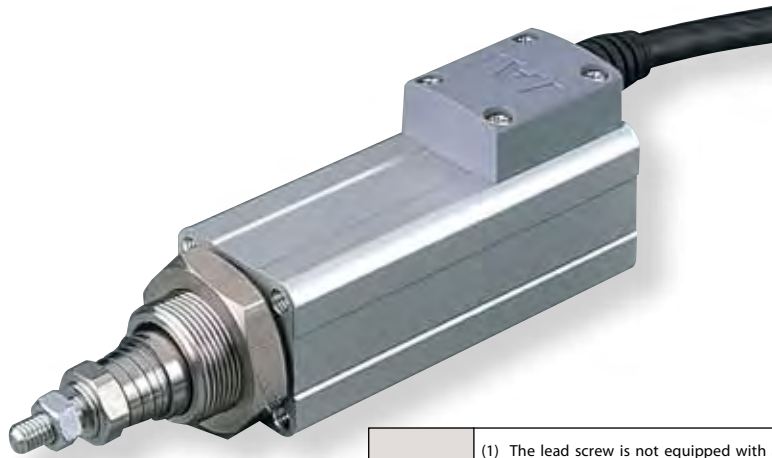
RCA2-RN4N

ROBO Cylinder Mini Rod type Short Length Fixed Nut type Fixed Nut type Actuator Width 34mm
24V servo motor Ball screw specification/Lead screw specification

■ Model Description **RCA2** - **RN4N** - **I** - **20** - **|** - **30** - - -

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible Controllers	Cable length	Option
		I: Incremental specification * Model number is "I" when used with simple absolute unit.	20: Servo Motor 20W	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	A1: ACON RACON ASEL A3: ASEP	N: None P: 1m S: 3m M: 5m X□□: Length Designation	Following options Refer to price table

*See page 11 for details on the model descriptions.



- POINT**
Notes on selection
- (1) The lead screw is not equipped with an anti-rotation device, so please attach a guide or similar locking device to the tip of the lead screw prior to use. (If there is no anti-rotation device attached, the lead screw cannot extend or retract.)
 - (2) Value when operated with payload acceleration of 0.3G
Acceleration limit is value indicated above.
 - (3) Do not apply an external force on the rod in any direction other than the direction the rod is moving in.

Actuator Specification Table

Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload		Rated thrust (N)	Positioning Repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
RCA2-RN4N-I-20-6-30-①-②-③	20	Ball screw	6	2	0.5	33.8	±0.02	30 (Fixed)
RCA2-RN4N-I-20-4-30-①-②-③			4	3	0.75	50.7		
RCA2-RN4N-I-20-2-30-①-②-③			2	6	1.5	101.5		
RCA2-RN4N-I-20-6S-30-①-②-③	20	Lead screw	6	0.25	0.125	19.9	±0.05	30 (Fixed)
RCA2-RN4N-I-20-4S-30-①-②-③			4	0.5	0.25	29.8		
RCA2-RN4N-I-20-2S-30-①-②-③			2	1	0.5	59.7		

Legend ① Compatible Controllers ② Cable length ③ Option

Stroke and Maximum Speed

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

* < > Indicates Vertical Use (Unit = mm/s)

Price list (by stroke)

Stroke (mm)	Type code	
	RN4N	
	Encoder type	
	Incremental	
	Feed screw	
	Ball screw	Lead screw
30	-	-

(2) Cable length (price chart)

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

* Robot type cable comes as standard with the RCA2 actuator.
* See page 113 for maintenance cables.

(3) Option price list (standard price)

Title	Option code	See page	Standard price
Change the cable connector outlet direction	K2	→P32	-

Actuator Specification

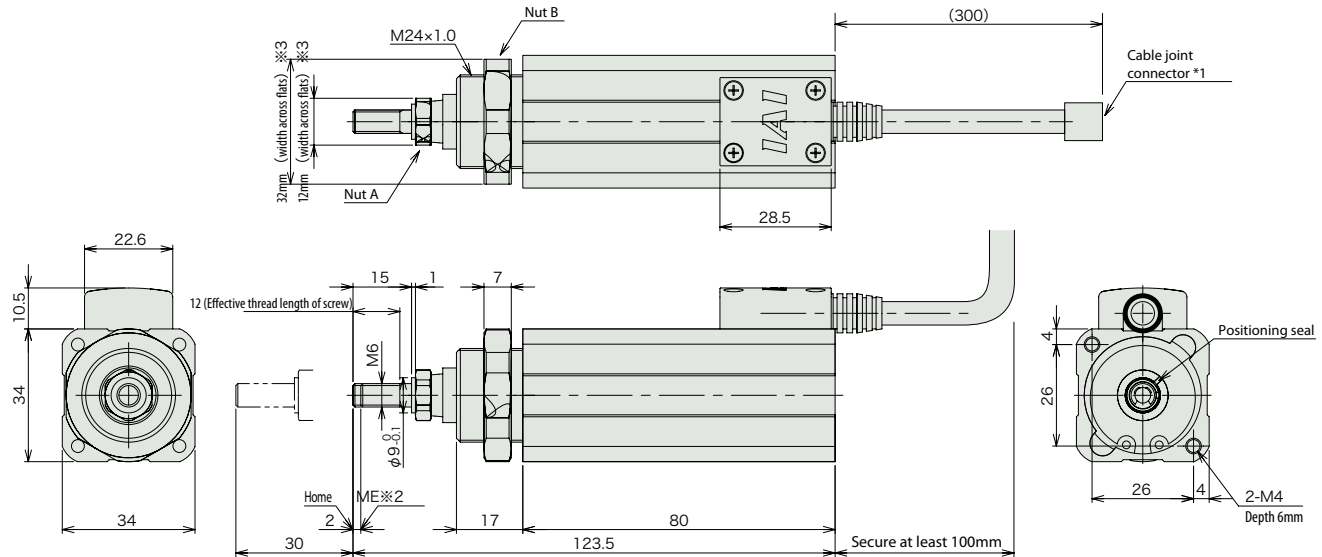
Item	Description	
Drive System	Ball screw/lead screw dia. 6mm, rolled C10	
Backlash	Ball screw: 0.1mm or less/ Lead screw: 0.3mm or less	
Frame	Material: Aluminum, white alumite treated	
Ambient operating temperature, humidity	0 to 40 °C, 85% RH or less (no condensation)	
Service life	Ball screw	5,000km
	Lead screw	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles

Dimensional Drawings

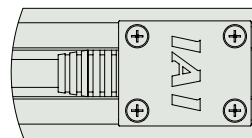
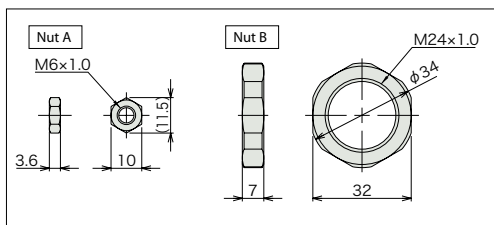
CAD drawings can be downloaded from the website. www.intelligentactuator.com



- *1 Connect the motor and encoder cables. See page 113 for cable details.
- *2 During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end. ROBO Cylinder Table type Rotary nut lead screw specification Rod.
- *3 The orientation of the plane of the width between two faces varies according to the product.



ME : Mechanical end



Changing cable connector outlet direction (Model : K2)

* Rotate 180° relative to standard specification.

Dimensions and Weight by Stroke

Stroke	30
Mass (kg)	0.5

Compatible Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

Title	External View	Model	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference Page
Solenoid valve type		ASEP-C-20I-NP-2-0	Simple controller capable of operating with the same signal as the solenoid valve Supports the use of both the single solenoid and the double solenoid types Simple Absolute type makes the return to home unnecessary.	3 points	DC24V	See P109.	-	→P101
		ASEP-CW-20I-NP-2-0					-	
Positioner type		ACON-□-20I-NP-2-0 (Note 1)	Up to 512-points positioning possible By attaching a simple absolute unit (sold separately), the return to home becomes unnecessary.	512 points			-	See the ROBO Cylinder general catalog.
Program type		ASEL-C-1-20I-NP-2-0	Programmable type Capable of operating up to 2 axes Simple Absolute unit cannot be used.	1500 points			-	

(Note 1) ACON can be used with C/CG/CY/PL/PO/SE type. Also, ROBONET can be used.

Mini Slider type
Mini Rod type
Mini Table type
Mini Linear Servo type
Controller
Compact
Wide
Flat
Coupling
Reverse-mounted

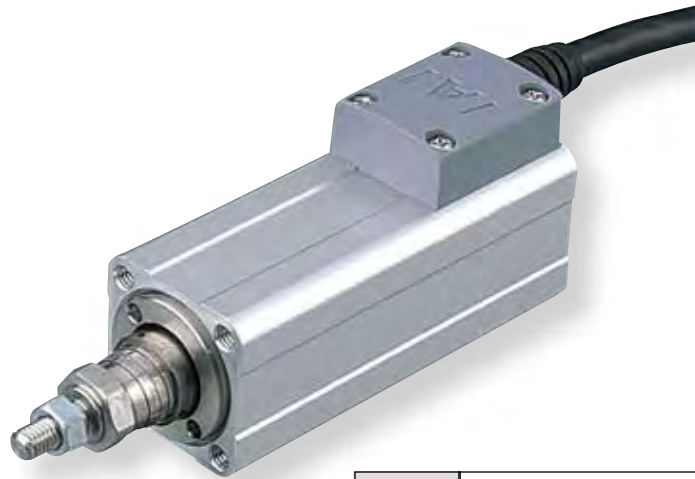
RCA2-RP3N

ROBO Cylinder Mini Rod type Short Length Tapped Hole type Actuator Width 28mm 24V servo motor Lead screw specification

■ Model Description **RCA2** – **RP3N** – **I** – **10** – – **30** – – –

Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible Controllers	Cable length	Option
		I: Incremental specification * Model number is "I" when used with simple absolute unit	10: Servo Motor 10W	4S: Lead screw 4mm 2S: Lead screw 2mm 1S: Lead screw 1mm	30: 30mm	A1: ACON RACON ASEL A3: ASEP	N: None P: 1m S: 3m M: 5m X <input type="text"/> : Length Designation	Following options Refer to price table

*See page 11 for details on the model descriptions.



- POINT**
Notes on selection
- (1) The lead screw is not equipped with an anti-rotation device, so please attach a guide or similar locking device to the tip of the lead screw prior to use. (If there is no anti-rotation device attached, the lead screw cannot extend or retract.)
 - (2) The load capacity is the value when operated at 0.2G acceleration. Acceleration limit is value indicated above.
 - (3) Do not apply an external force on the rod in any direction other than the direction the rod is moving in.

Actuator Specification Table

Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload		Rated thrust (N)	Positioning Repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
RCA2-RN3N-I-10-4S-30- <input type="text"/> - <input type="text"/> - <input type="text"/>	10	Lead screw	4	0.25	0.125	25.1	±0.05	30 (Fixed)
RCA2-RN3N-I-10-2S-30- <input type="text"/> - <input type="text"/> - <input type="text"/>			2	0.5	0.25	50.3		
RCA2-RN3N-I-10-1S-30- <input type="text"/> - <input type="text"/> - <input type="text"/>			1	1	0.5	100.5		

Legend Compatible Controllers Cable length Option

Stroke and Maximum Speed

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

(Unit = mm/s)

Price list (by stroke)

Stroke (mm)	Type code
	RP3N
	Encoder type
	Incremental
	Feed screw
Lead screw	
30	–

(2) Cable length (price chart)

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

* Robot type cable comes as standard with the RCA2 actuator.
* See page 113 for maintenance cables.

(3) Option price list (standard price)

Title	Option code	See page	Standard price
Change the cable connector outlet direction	K2	→P34	–

Actuator Specification

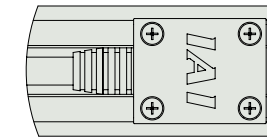
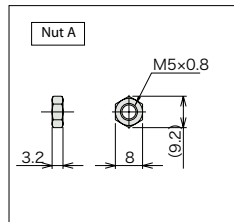
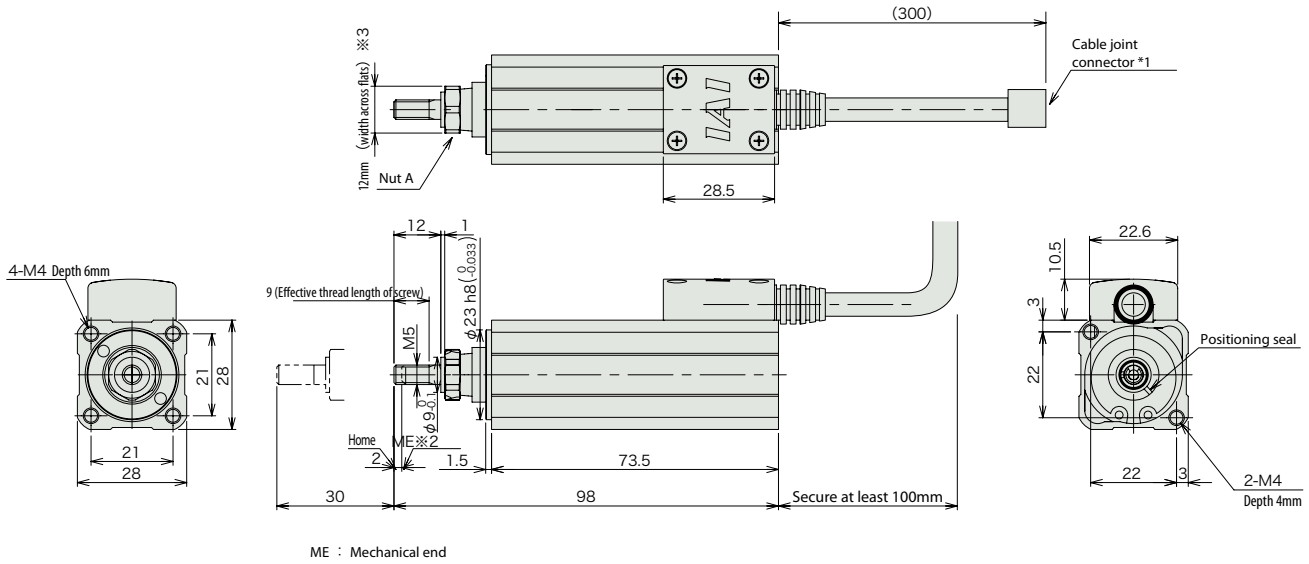
Item	Description
Drive System	Lead screw, φ4mm, rolled C10
Backlash	0.3mm or less (initial value)
Frame	Material: Aluminum, white alumite treated
Ambient operating temperature, humidity	0 to 40 °C, 85% RH or less (no condensation)
Service life	Horizontal specification: 10 million cycles, Vertical specification: 5 million cycles

Dimensional Drawings

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



- *1 Connect the motor and encoder cables. See page 113 for cable details.
- *2 During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end. ROBO Cylinder Table type Rotary nut lead screw specification Rod.
- *3 The orientation of the plane of the width between two faces varies according to the product. Remote device station) MSTBA2.5/5-G-5.08-AUM made by Phoenix Contact Remote device station) MSTBA2.5/5-G-5.08-AUM made by Phoenix Contact.



Changing cable connector outlet direction (Model : K2)
* Rotate 180° relative to standard specification.

■ Dimensions and Weight by Stroke

Stroke	30
Mass (kg)	0.2

Compatible Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

Title	External View	Model	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference Page
Solenoid valve type		ASEP-C-10I-NP-2-0	Simple controller capable of operating with the same signal as the solenoid valve Supports the use of both the single solenoid and the double solenoid types Simple Absolute type makes the return to home unnecessary.	3 points	DC24V	See P109.	-	→P101
		ASEP-CW-10I-NP-2-0					-	
Positioner type		ACON-□-10I-NP-2-0 (Note 1)	Up to 512-points positioning possible By attaching a simple absolute unit (sold separately), the return to home becomes unnecessary.	512 points			-	See the ROBO Cylinder general catalog.
Program type		ASEL-C-1-10I-NP-2-0	Programmable type Capable of operating up to 2 axes Simple Absolute unit cannot be used.	1500 points			-	

(Note 1) ACON can be used with C/CG/CY/PL/PO/SE type. Also, ROBONET can be used.

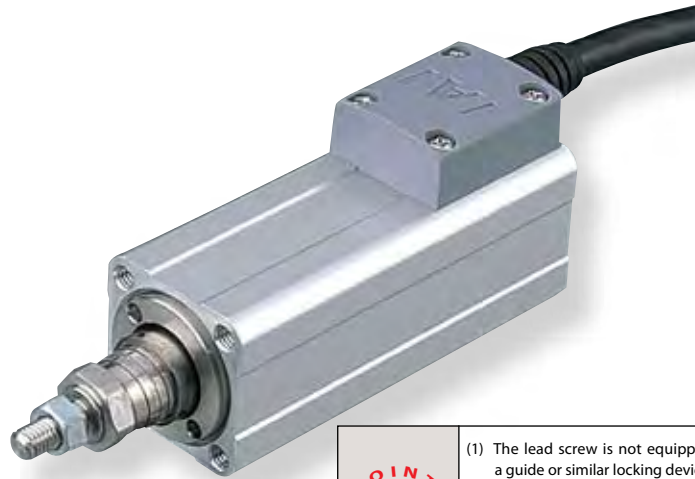
Mini Slider type
Mini Rod type
Mini Table type
Mini Linear Servo type
Controller
Compact
Wide
Flat
Coupling
Reverse-mounted

RCA2-RP4N

ROBO Cylinder Mini Rod type Short Length Tapped Hole type Actuator Width 34mm 24V servo motor Ball screw specification/ Lead screw specification

Model Description		RCA2	RP4N	I	20		30			
Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible Controllers	Cable length	Option		
		I: Incremental specification * Model number is "I" when used with simple absolute unit.	20: Servo Motor 20W	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	A1: ACON RACON ASEL A3: ASEP	N: None P: 1m S: 3m M: 5m X□□: Length Designation	Following options Refer to price table		

*See page 11 for details on the model descriptions.



- POINT**
Notes on selection
- (1) The lead screw is not equipped with an anti-rotation device, so please attach a guide or similar locking device to the tip of the lead screw prior to use.* (If there is no anti-rotation device attached, the lead screw cannot extend or retract.)
 - (2) Value when operated with payload acceleration of 0.3G
Acceleration limit is value indicated above.
 - (3) Do not apply an external force on the rod in any direction other than the direction the rod is moving in.

Actuator Specification Table

Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload		Rated thrust (N)	Positioning Repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
RCA2-RP4N-I-20-6-30-①-②-③	20	Ball screw	6	2	0.5	33.8	±0.02	30 (Fixed)
RCA2-RP4N-I-20-4-30-①-②-③			4	3	0.75	50.7		
RCA2-RP4N-I-20-2-30-①-②-③			2	6	1.5	101.5		
RCA2-RP4N-I-20-6S-30-①-②-③	20	Lead screw	6	0.25	0.125	19.9	±0.05	30 (Fixed)
RCA2-RP4N-I-20-4S-30-①-②-③			4	0.5	0.25	29.8		
RCA2-RP4N-I-20-2S-30-①-②-③			2	1	0.5	59.7		

Legend ① Compatible Controllers ② Cable length ③ Option

Stroke and Maximum Speed

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

* < > Indicates Vertical Use (Unit = mm/s)

Price list (by stroke)

Stroke (mm)	Type code	
	RP4N	
	Encoder type	
	Incremental	
	Feed screw	
	Ball screw	Lead screw
30	-	-

(2) Cable length (price chart)

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

* Robot type cable comes as standard with the RCA2 actuator.
* See page 113 for maintenance cables.

(3) Option price list (standard price)

Title	Option code	See page	Standard price
Change the cable connector outlet direction	K2	→P32	-

Actuator Specification

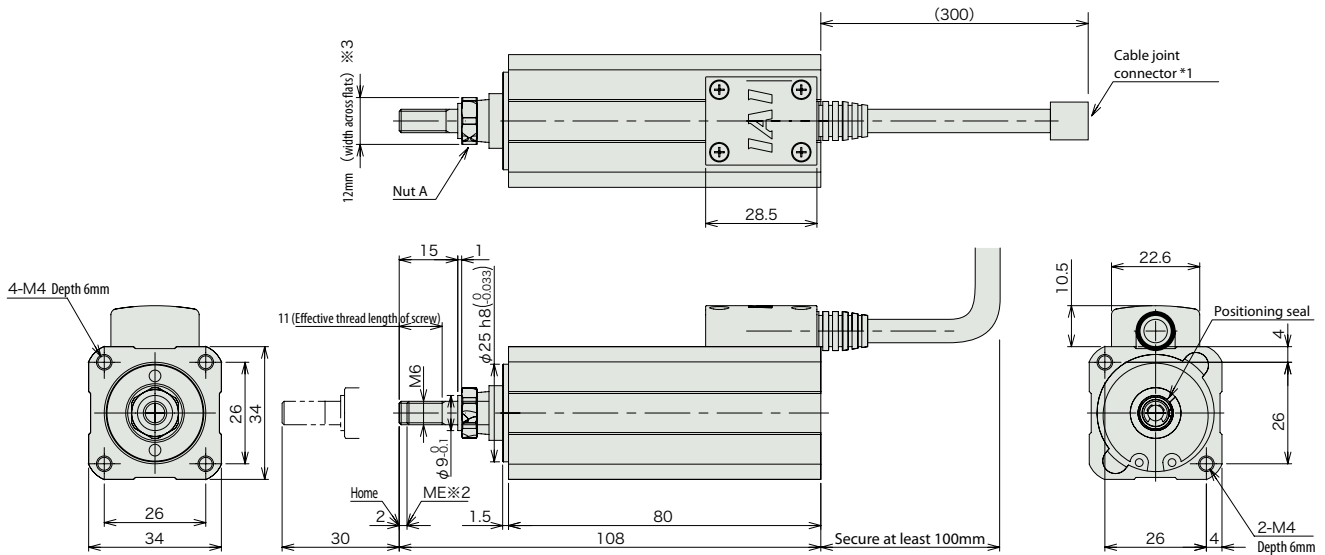
Item	Description	
Drive System	Ball screw/ lead screw dia. 6mm, rolled C10	
Backlash	Ball screw: 0.1mm or less/ Lead screw: 0.3mm or less	
Frame	Material: Aluminum, white alumite treated	
Ambient operating temperature, humidity	0 to 40 °C, 85% RH or less (no condensation)	
Service life	Ball screw	5,000km
	Lead screw	Horizontal specification: 10 million cycles Vertical specification: 5 million cycles

Dimensional Drawings

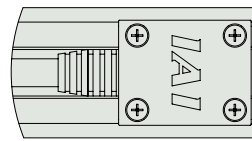
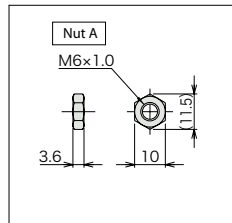
CAD drawings can be downloaded from the website. www.intelligentactuator.com



- *1 Connect the motor and encoder cables. See page 113 for cable details.
- *2 During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end. ROBO Cylinder Table type Rotary nut lead screw specification Rod.
- *3 The orientation of the plane of the width between two faces varies according to the product.



ME : Mechanical end



Changing cable connector outlet direction (Model : K2)
* Rotate 180° relative to standard specification.

■ Dimensions and Weight by Stroke

Stroke	30
Mass (kg)	0.42

Compatible Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

Title	External View	Model	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference Page
Solenoid valve type		ASEP-C-20I-NP-2-0	Simple controller capable of operating with the same signal as the solenoid valve Supports the use of both the single solenoid and the double solenoid types Simple Absolute type makes the return to home unnecessary.	3 points	DC24V	See P109.	-	→P101
		ASEP-CW-20I-NP-2-0					-	
Positioner type		ACON-□-20I-NP-2-0 (Note 1)	Up to 512-points positioning possible By attaching a simple absolute unit (sold separately), the return to home becomes unnecessary.	512 points			-	-
Program type		ASEL-C-1-20I-NP-2-0	Programmable type Capable of operating up to 2 axes Simple Absolute unit cannot be used.	1500 points	-	-		

(Note 1) ACON can be used with C/CG/CY/PL/PO/SE type. Also, ROBOTNET can be used.