RCA2-RP3NA

ROBO Cylinder Mini Rod Type Short-Length Tapped-Hole Mounting Type Actuator Width 28 mm
24V Servo Motor Ball Screw Specification/Lead Screw Specification

■ Model Description

RCA2 – RP3NA – I – 10 – □ – □ – □ – □ – □

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	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	A3: ACON-CYB/PLB/POB A5: ACON-CB/CGB A6: RCON RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Length Designation	K2: Connector cable exits from the front LA: Power-saving specification

* See page 14 for details on the model descriptions.

Power-saving specification

POINT 選定上の注意

(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.) When connecting the anti-rotation device and rod, do not use a floating joint.
(2) The horizontal payload is the value when the actuator uses an external guide.
(3) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for lead 1, if used vertically and for lead screw specification). The acceleration limit is the value indicated above.
(4) Do not apply an external force on the rod in any direction other than the direction the rod is moving in.
(5) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.

Actuator Specifications Table

■ Leads and Payloads

Model	Motor output (W)	Feed screw	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Positioning repeatability (mm)	Stroke (mm)
RCA2-RP3NA-I-10-4-①-②-③-④	10	Ball screw	4	0.75	0.25	42.7	±0.02	30 50
RCA2-RP3NA-I-10-2-①-②-③-④			2	1.5	0.5	85.5		
RCA2-RP3NA-I-10-1-①-②-③-④			1	3	1	170.9		
RCA2-RP3NA-I-10-4S-①-②-③-④	10	Lead screw	4	0.25	0.125	25.1	±0.05	30 50
RCA2-RP3NA-I-10-2S-①-②-③-④			2	0.5	0.25	50.3		
RCA2-RP3NA-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	
Ball screw 2	100	
Ball screw 1	50	
Lead screw 4	200	
Lead screw 2	100	
Lead screw 1	50	

(unit: mm/s)

Legend ① Stroke ② Compatible Controllers ③ Cable length ④ Option

① Stroke list

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

③ Cable Length

Type	Cable symbol	Standard price
Standard type (Robot cable)	**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.

④ Options

Title	Option code	See page	Standard price
Connector cable exits from the front	**K2**	—	—
Power-saving specification	**LA**	—	—

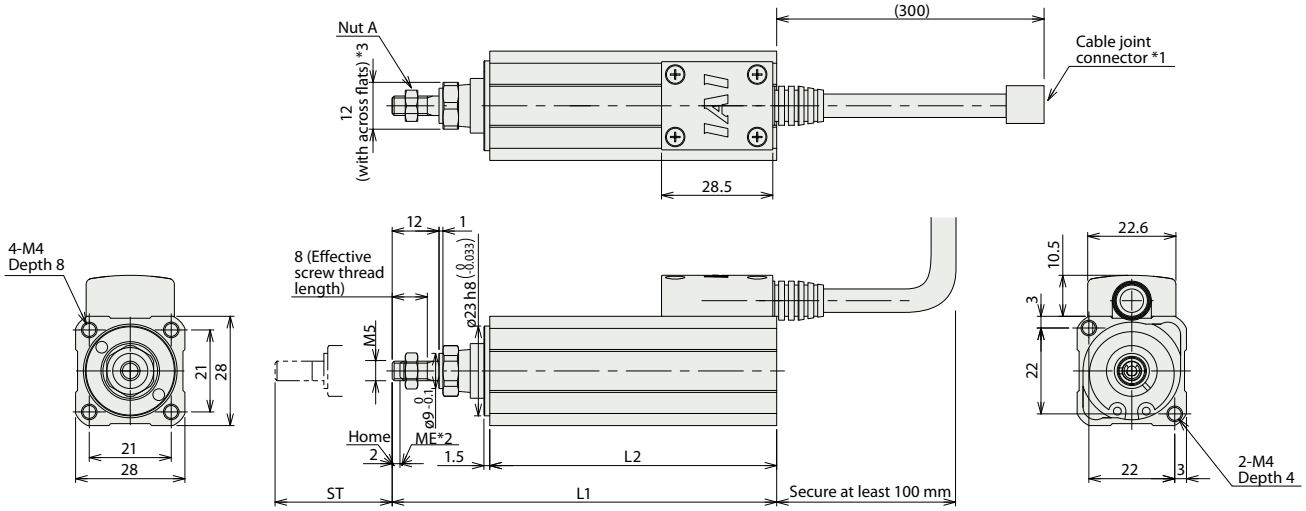
Actuator Specifications

Item		Description
Drive System		Ball screw/Lead screw, ø4mm, rolled C10
Lost motion		Ball screw: 0.1mm or less Lead screw: 0.3 mm or less
Frame		Material: Aluminum, white alumite treated
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

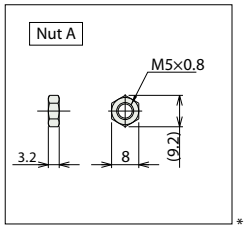
Dimensional Drawings

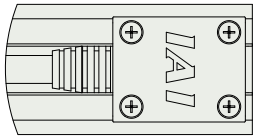
CAD drawings can be downloaded from the website. www.intelligentactuator.com

*1 Connect the motor and encoder cables.
*2 During home return, be careful to avoid interference from peripheral objects because the rod travels until the mechanical end.
*3 The orientation of the nut varies depending on the product.



ST : Stroke
ME : Mechanical end





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

■ Dimensions and Weight by Stroke

Stroke	30	50
L1	98.5	118.5
L2	73.5	93.5
Mass (kg)	0.2	0.22

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method														Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *1												
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM	
ACON-CB/CGB		1	24VDC	● * Option	● * Option	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI for more information.
ACON-CYB/PLB/POB		1		● * Option	● * Option	-	-	-	-	-	-	-	-	-	-	-	-	-	64	
RCON		16 (ML3,SSN, ECM are 8)		-	-	-	●	●	●	●	-	-	●	●	●	●	●	●	128 (No position data for ML3, SSN, ECM),	
RSEL		8		-	-	●	●	●	●	●	-	-	-	●	●	●	-	-	36000	

*1 For network abbreviations such as DV and CC, please contact IAI.

More controller info is available in the General Controller Catalog PDF.