

# **Product Overview**

<u>IAI ROBOT LINEUP</u>

Industrial Automation Robots



# Mini ROBO Cylinder



Next-generation electric actuators, the solution for space constrained applications

### **RCP3** MINI SLIDER TYPE





Motor Coupled Type

Side-Mounted Motor Type

### **RCA2** MINI SLIDER TYPE





Motor Coupled Type

Side-Mounted Motor Type

- The coupled motor makes replacement easy.
- The straight type (motor coupled type) and the side-mounted motor type are also available.

### RCP3 MINI ROD TYPE



Motor Coupled Type

Side-Mounted Motor Type

### **RCA2** MINI ROD TYPE



Motor Coupled Type





Short Nut-Mounting Type



Short Tapped-Hole Mounting Type



Short Free Mounting Type with Single Guide



Short Free Mounting Type with Double Guides



Short Slide Unit Type with Double Guides

- The unitized motor type has significantly reduced in length.
- If an application requires extra rigidity and linearity, you can choose from single and double built-in guides. The non-guide types allow external guide(s) to be attached, which help significantly reduce the actuator size.



Short Compact Type



Short Wide Type





Short Flat Type





Motor Coupled Type

Side-Mounted Motor Type

- The built-in guide allows the actuator to receive overhung loads.
- Actuators with long strokes are also available.

### **RCD** MINI CYLINDER



**Ultra-Compact Type** 

- The smallest in the industry with a cross-section size of 12mm.
- The built-in encoder allows position control.

### **RCL** MINI LINEAR SERVO TYPE







Micro Slider Long Stroke Type



Micro Cylinder Slim Type

- With the use of linear motors, these actuators can operate at high speeds and high acceleration/deceleration with G-forces up to 2G.
- Slider and rod types are available. The slider type is classified into six subtypes according to size and stroke.
- The multi-slider type has two sliders installed on one axis, where both sliders can be operated separately.

# **ROBO Cylinder®**

Rod Type



The affordable high-precision electric actuators reduce your running costs to 1/5 of a pneumatic system

ROBO Cylinders are high-performance electric actuators with a ball screw or belt, linear guide, and AC servo motor or DC servo/stepper motor. These next-generation actuators offer multi-point positioning capability and speed/acceleration change function unseen with air cylinders.

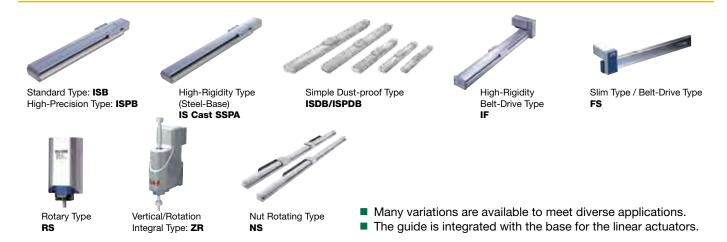
### RCP4 SERIES ERC3 SERIES CONTROLLER INTEGRATED TYPE Motor Coupled Slider Type Motor Coupled Rod Type Slider Type Rod Type [Radial Cylinder] ■ 1.5 times higher maximum speed and double the ■ The ERC3 Series have built-in controllers which simplify set up and use. payload when combined with a Power CON 150. ■ High-precision, performance and rigidity all in an affordable package. Small Gripper Slider Belt Type High Thrust Type Rotary Type Gripper Type Table Type Slider Type High push force is achieved with the use of stepper motors. Many different sizes and variations are available to meet a wide range of applications. Short Body Type with Guide Three Finger Gripper Short Body Type High Grip Force Type RCA2 SERIES RCA SERIES 24V SERVO MOTOR TYPE **Guided Rod Type** Slider Type Motor Coupled Side-Mounted Side-Mounted Table Type Slider Type Rod Type Motor Rod Type Motor Type Shaped similar to a rod-type air cylinder, these actuators accept various mounting brackets that are used on air cylinders. Three motor installation methods are available to choose from. An optional home check sensor can be set. [Knuckle joint] [Flange] [Foot] [Rear trunnion] [Clevis] RCS2 SERIES 100V/200V SERVO MOTOR TYP RCS3 SERIES Large Diameter Slider Type Side-Mounted Slim Rod Type Aluminum-Base Type Steel-Base Type Motor Slider Type Hollow Rotary Type Equipped with a servo motor, these actuators support high loads and long strokes. When an XSEL controller is used, you can combine three or more axes. Short Rod Type Ultra High Thrust Guided Rod Type

Connectable to DeviceNet, Profibus, Modbus and CC-Link.

# **Single Axis Robot**



Intelligent actuators with high-speed, high-transfer capabilities



# **Cleanroom Type**

Dedicated cleanroom types conforming to cleanliness class 10



# Splash-proof/Dust-proof Type

Protection conforming to IP54-IP67, these actuators are the solution when the environment is less than desirable



# TT Table Top Type Robot









3-axis Gate Type

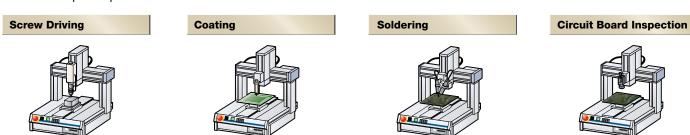


2-axis Cantilever Type



3-axis Cantilever Type

- These all-in-one robots are ideal for cell production and R&D applications. The 200mm x 200mm and 400mm x 400mm type are available as standard products.
- The TT is equipped with a rigid base, stepper control motor and an encoder to prevent mis-stepping.
- All models come with a built-in XSEL controller which is popular for its ability to achieve high tracing precision and constant speed operation.

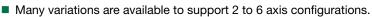


## **Cartesian Robots**

Get your ROI quickly with pre-configured cartesian robots that reduce installation and setup times



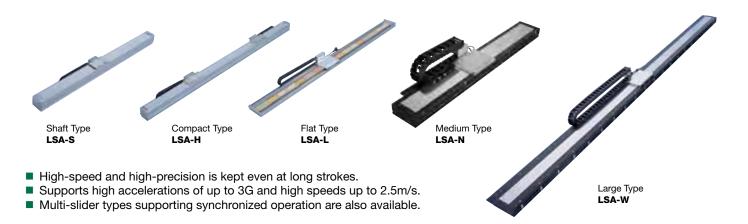




- The multi-slider types (ICSPA4/ICSPA6) let you reduce space and cycle time.
- We can also design specifications with rotational axis(es).
- Customize the optimum model that suits your specific needs.

### **LSA Series Linear Servo Actuator**

A full lineup of linear servo actuators to meet your needs Maximum load capacities of up to 120kg and maximum strokes of up to 4m



## **IX Series SCARA Robots**

The IX SCARA robots feature high performance and functionality



### SCARA ROBOT ARM LENGTH 250/350/500/600/700/800 MM



Standard Compact Type



Standard Medium Type



Standard Large Type



High-Speed Type



Wall Type



Ceiling Type

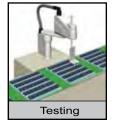
- Achieves high speeds and repeatability.
- Easy programming makes these actuators much more user-friendly.
- Many variations are available to support arm lengths of 250 to 800mm.

### ULTRA-COMPACT SCARA ARM LENGTH 120/150/180 MM



- The compact size of the robot allows you to reduce the size of your production facility.
- The rated loading capacity is 0.2 kg, and can be increased to 1 kg.
- High-speed performance with a cycle time of 0.35 sec.







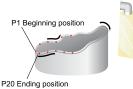
### **Z-axis Push Function**

Enables you to easily apply compression force and torque.



### **3D Path Capability**

Faster CPU speed and rigid robot construction, along with 3D arc motion & path control, allow for easy, accurate path tracing.





### **Interference Check Zones**

A maximum of 10 user-defined check zones can be set inside the robot's operation range.

### **Controller**

Wide variety of operation patterns for your specific needs

### 3-POSITION CONTROLLER

### PMEC AMEC



Power supply, accelertion/speed change function included.

Operation as easy as any air-cylinder system.

### PSEP ASEP DSEP







Use the same signals as air-cylinder solenoid valves. Standard and dust-proof specifications are available.

### The dust-proof specification has a protective structure conforming to IP53, allowing it to be installed outside the control panel.

### **POSITION CONTROLLER**

RCA2/RCL

Power CON 150 PCON-CA

RCP2/RCP3



**RCP4** Position Controller



Position Controller

SCON-CA

RCS2/RCS3 - Cartesian - Linear Servo Position Controller

- PCON/ACON controllers are available in: Positioner/Solenoid valve/Pulse-train input/ Serial communication types.
- SCON controllers are an all-in-one controller that conforms to all control methods.
- Up to 512 positions can be set.
- DeviceNet, CC-Link and other field networks can be supported.
- SCON-CA comes with force control and vibration control functions.

#### **ROBO NET**



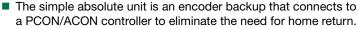
RCP2/RCP3/RCA/RCA2/RCL Network Controller



Simple Absolute



**Expansion Unit** 



- ROBONET minimizes wires and operates on DeviceNet, CC-Link or other networks.
- Link and operate up to 16 axes.

### PROGRAM CONTROLLER



Program Controller 1-2 axis



RCA/RCA2/RCL **Program Controller** 1-2 axis





RCS2/RCS3 - Cartesian - Linear Servo Program Controller

- PSEL/ASEL/SSEL controllers support interpolated operation and are used to set one or two axes.
- XSEL controllers can operate up to 6 axes.
- All controllers support DeviceNet, CC-Link and other field networks.

# **Power supply**

Low-cost 24VDC power supply ideal for powering actuators



- Accelerate an actuator with maximum momentary current output of 17A.
- Up to 5 units can be operated in parallel.
- The load factor detection function lets you monitor the load condition of the unit.

# Teaching Pendant

Programming points have never been easier (ANSI type offering enhanced safety is available)





ERC3 Power Supply Built-in Teaching Pendant **RCM-PST (Quick Teach)** 

