

Product Overview

IAI ROBOT LINEUP

Industrial Automation Robots

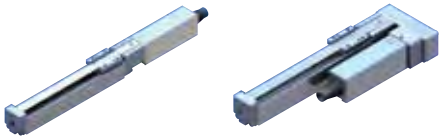


Mini ROBO Cylinder



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

RCP3 MINI SLIDER TYPE



Motor Coupled Type Side-Mounted Motor Type

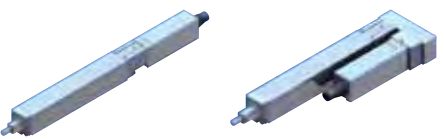
- The coupled motor makes replacement easy.
- The straight type (motor coupled type) and the side-mounted motor type are also available.

RCA2 MINI SLIDER TYPE



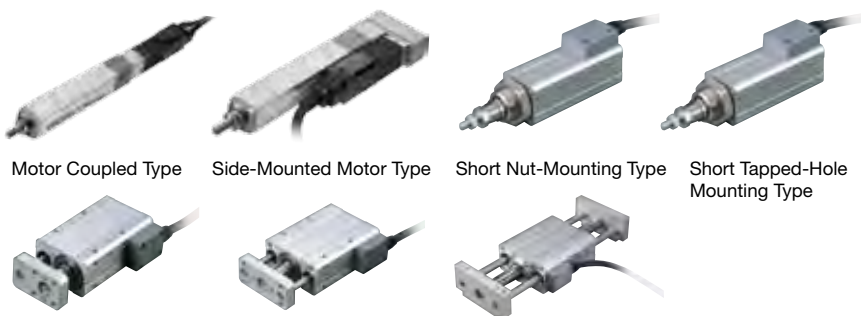
Motor Coupled Type Side-Mounted Motor Type

RCP3 MINI ROD TYPE



Motor Coupled Type Side-Mounted Motor Type

RCA2 MINI ROD TYPE



Motor Coupled Type Side-Mounted Motor 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

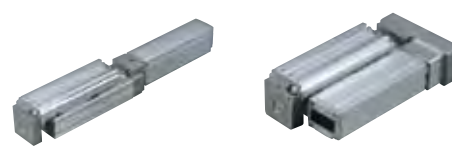
- The unitized motor type has significantly reduced in length.
- If an application requires extra rigidity and linearity, you can choose from single and double built-in guides. The non-guide types allow external guide(s) to be attached, which help significantly reduce the actuator size.

RCA2 MINI TABLE TYPE



Short Compact Type Short Wide Type Short Flat Type

RCP3/RCA2 MINI TABLE 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 Slim 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 sub-types 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®



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.

ERC3 SERIES CONTROLLER INTEGRATED TYPE



Motor Coupled Slider Type



Motor Coupled Rod Type

- The ERC3 Series have built-in controllers which simplify set up and use.
- High-precision, performance and rigidity all in an affordable package.

RCP4 SERIES



Slider Type



Rod Type [Radial Cylinder]

- 1.5 times higher maximum speed and double the payload when combined with a Power CON 150.

RCP2 SERIES PULSE MOTOR TYPE



Slider Belt Type



High Thrust Type



Rotary Type



Gripper Type



Small Gripper



Table Type



Slider Type



High Grip Force Type



Three Finger Gripper



Short Body Type



Short Body Type with Guide

RCP3 SERIES

- 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.

RCA SERIES 24V SERVO MOTOR TYPE



Motor Coupled Rod Type



Side-Mounted Motor Rod Type



Guided Rod Type



Slider Type



Side-Mounted Motor Type

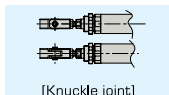


Table Type

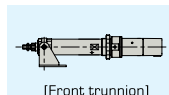


Slider Type

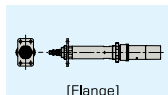
- Shaped similar to a rod-type air cylinder, these actuators accept various mounting brackets that are used on air cylinders.
- Three motor installation methods are available to choose from.
- An optional home check sensor can be set.



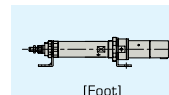
[Knuckle joint]



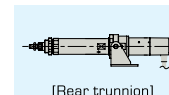
[Front trunnion]



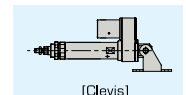
[Flange]



[Foot]



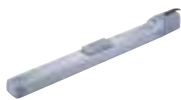
[Rear trunnion]



[Clevis]

RCA2 SERIES

RCS2 SERIES 100V/200V SERVO MOTOR TYPE



Slider Type



Side-Mounted Motor Slider Type



Slim Rod Type



Large Diameter Hollow Rotary Type



Short Rod Type



Ultra High Thrust Rod Type

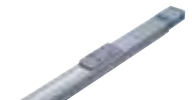


Guided Rod Type

RCS3 SERIES



Aluminum-Base Type



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

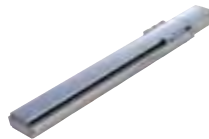
Single Axis Robot



Intelligent actuators with high-speed, high-transfer capabilities



Standard Type: **ISB**
High-Precision Type: **ISPB**



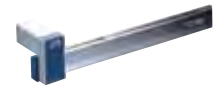
High-Rigidity Type
(Steel-Base)
IS Cast SSPA



Simple Dust-proof Type
ISDB/ISPDB



High-Rigidity
Belt-Drive Type
IF



Slim Type / Belt-Drive Type
FS



Rotary Type
RS



Vertical/Rotation
Integral Type: **ZR**



Nut Rotating Type
NS

- Many variations are available to meet diverse applications.
- The guide is integrated with the base for the linear actuators.

Cleanroom Type

Dedicated cleanroom types conforming to cleanliness class 10



24V Pulse Motor
RCP2CR



24V Servo Motor
RCACR



200V Servo Motor
RCS2CR/RCS3CR



Standard Type / High-Precision Type
ISDBC/ISPDBC



Anti-Static Type
ISDACR-ESD



Small Gripper
RCP2CR-GRSS/GRLS



SCARA Robot
IX-NNC



Ultra-Compact
SCARA Robot
IX-NNC

- The highly sealed structure achieves operation in conformance with cleanliness class 10.
- Wide variations are available, including ROBO Cylinders and single-axis/SCARA robots.

Splash-proof/Dust-proof Type

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



Slider Type
RCP2W-SA16C



Slider Type
ISWA/ISPA



Pulse Motor Rod Type
RCP2W-RA4C/RA6C



High-Thrust Rod Type
RCP2W-RA10C



24V Servo Motor
Rod Type
RCAW-RA3/RA4



200V Servo Motor
Rod Type
RCS2W-RA4



Small Gripper (Dust-proof)
RCP2W-GRSS/GRLS



SCARA Robot
IX-NNW

- These actuators handle environments with extreme dust or water splashes.
- Many variations are available to meet diverse applications.

TT Table Top Type Robot

TABLE TOP TT



2-axis Gate Type



3-axis Gate Type



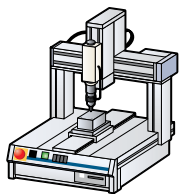
2-axis Cantilever Type



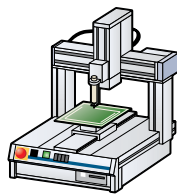
3-axis Cantilever Type

- 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.

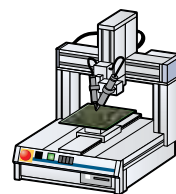
Screw Driving



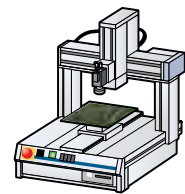
Coating



Soldering



Circuit Board Inspection



Cartesian Robots

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

ICSA2/ICSPA2 2-AXIS COMBINATION



Y-axis Base Fixed Type
XYB



Y-axis Slider Fixed Type
XYS



Z-axis Base Fixed Type
XZ



Z-axis Slider Fixed Type
YZ

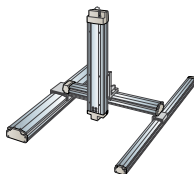


Gantry Type
XYG

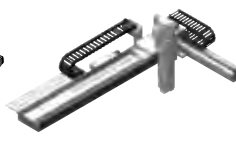
ICSA3/ICSPA3 3-AXIS COMBINATION



XYB+Z axis Type

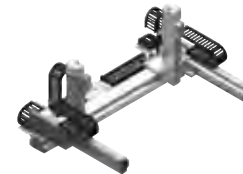


XYG+Z axis Type



X-axis Nut Rotation Type
X-axis Linear Servo Type

ICSPA6 6-AXIS COMBINATION

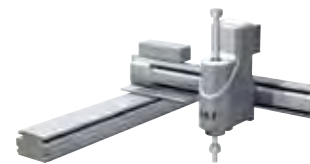


X-axis Nut Rotation, Multi-Slider Type
X-axis Linear Servo, Multi-Slider Type

IK SERIES MULTI-AXIS ROBO CYLINDER KITS



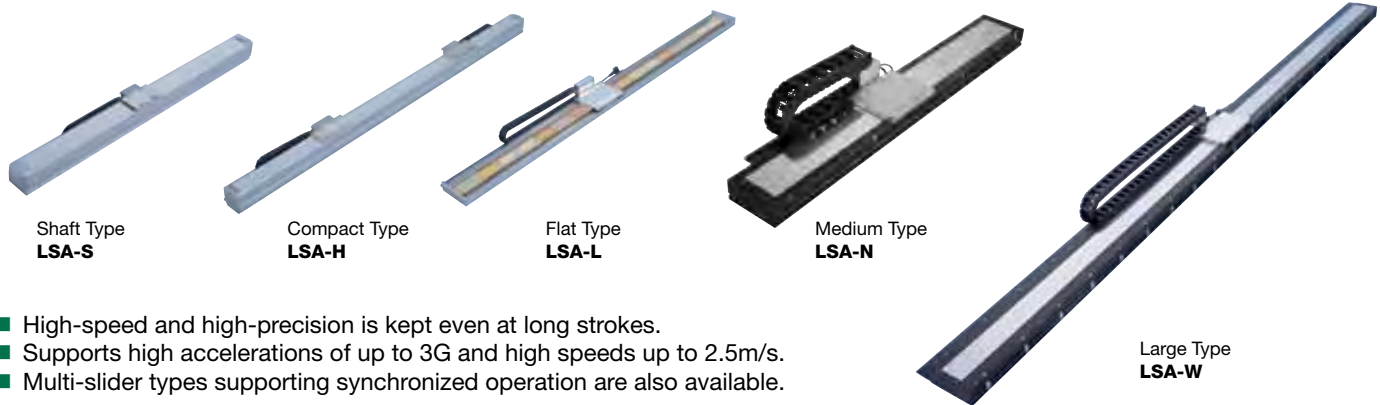
ZR UNIT



- Many variations are available to support 2 to 6 axis configurations.
- 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



- High-speed and high-precision is kept even at long strokes.
- Supports high accelerations of up to 3G and high speeds up to 2.5m/s.
- Multi-slider types supporting synchronized operation are also available.

IX Series SCARA Robots

The IX SCARA robots feature high performance and functionality



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

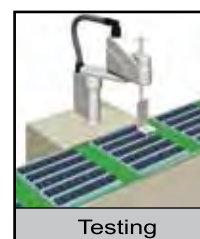


- Achieves high speeds and repeatability.
- Easy programming makes these actuators much more user-friendly.
- Many variations are available to support arm lengths of 250 to 800mm.

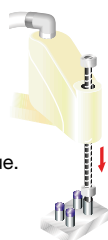
ULTRA-COMPACT SCARA ARM LENGTH 120/150/180 MM



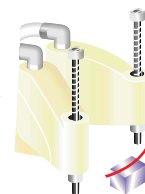
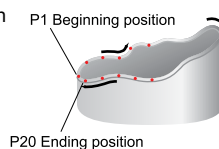
- The compact size of the robot allows you to reduce the size of your production facility.
- The rated loading capacity is 0.2 kg, and can be increased to 1 kg.
- High-speed performance with a cycle time of 0.35 sec.



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

AMEC



RCP2/RCP3 RCA2/RCL

- Power supply, acceleration/speed change function included.
- Operation as easy as any air-cylinder system.

PSEP ASEP DSEP



RCP2/RCP3 RCA2/RCL RCD

- 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

Power CON 150 PCON-CA



RCP4 Position Controller



RCA/RCA2/RCL 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

- The simple absolute unit is an encoder backup that connects to a PCON/ACON controller to eliminate the need for home return.
- ROBONET minimizes wires and operates on DeviceNet, CC-Link or other networks.
- Link and operate up to 16 axes.

PROGRAM CONTROLLER

PSEL



RCP2/RCP3 Program Controller 1-2 axis

ASEL



RCA/RCA2/RCL Program Controller 1-2 axis

SSEL



1-2 axis

XSEL



1-6 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



PS-24

- 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)



PCON/ACON/SCON/ROBONET/PSEP/ASEP/PMEC/AMEC CON-PTA-M-ENG



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



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