



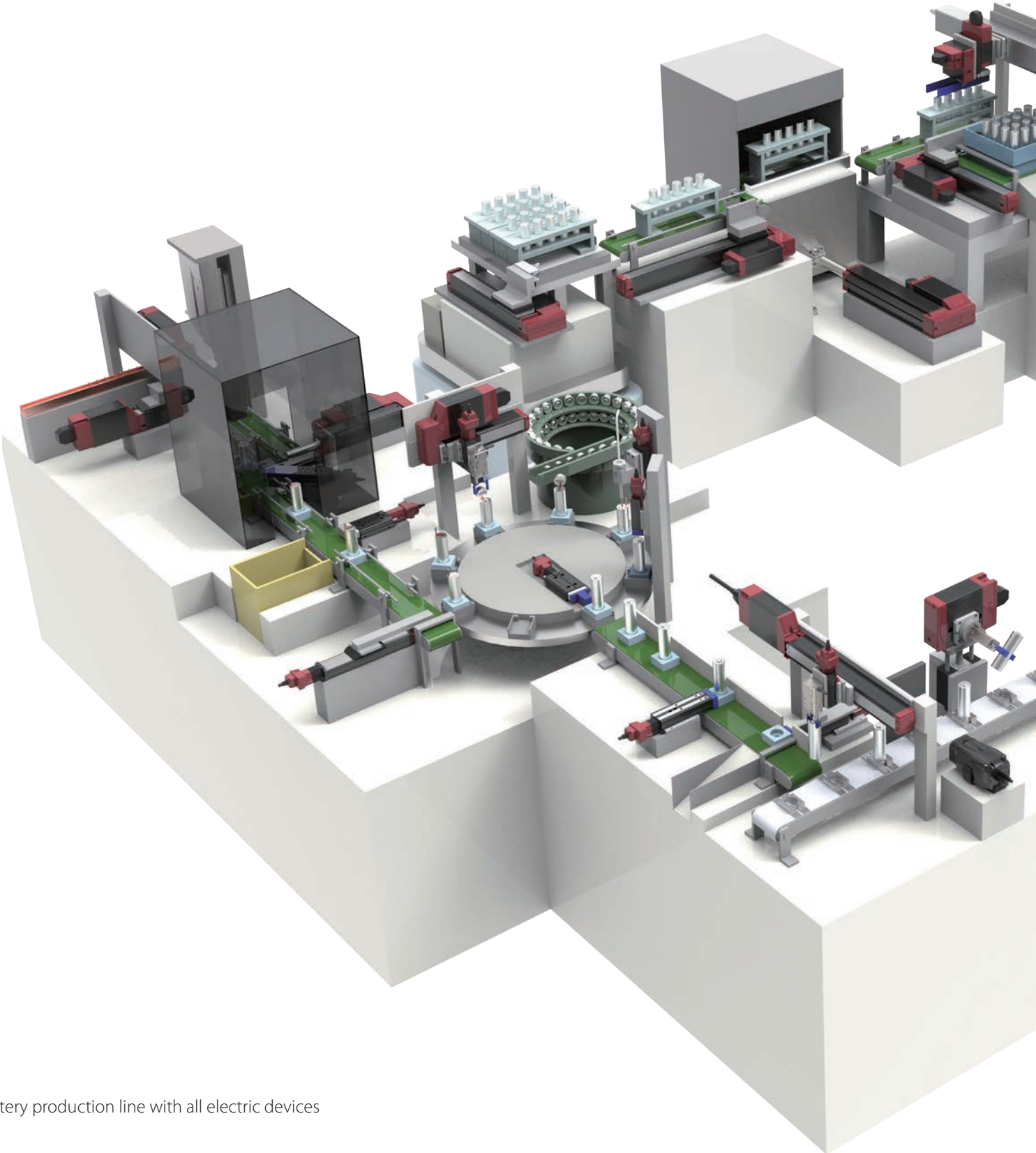
Digest Catalog

IAI Industrial Robots  
Digest Catalog

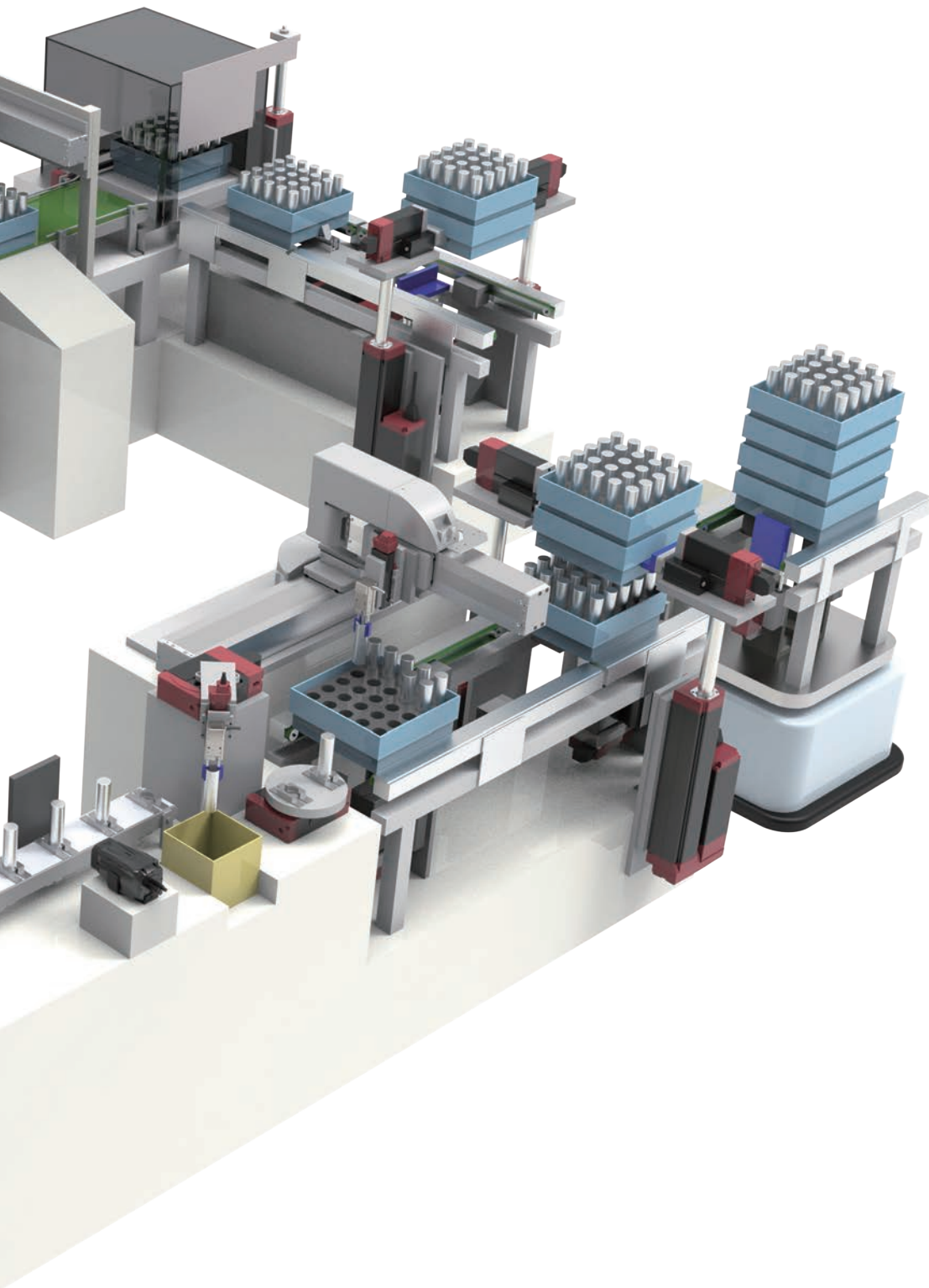
**IAI**  
Quality and Innovation  
[www.intelligentactuator.com](http://www.intelligentactuator.com)

# INDEX

As a leading manufacturer of electric actuators/compact industrial robots, IAI always anticipates market needs and brings a variety of products to market each year. A wide variety of variations are available to provide the best system for your site.



Battery production line with all electric devices



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# About Us



Leading manufacturer of compact industrial robots  
**World's No.1** share of single axis/Cartesian robots

## IAI Group Headquarters (Japan)

Company Name: IAI Corporation  
 Establishment date: April 3, 1976  
 Representative: President & CEO Toru Ishida  
 Business Description: Development, design, manufacturing and sales of compact industrial robots  
 Development of new agricultural technology (Eco-Farm Department)  
 Number of employees: 1349 as of April 2023



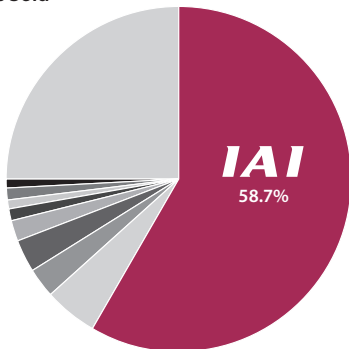
### Worldwide Offices



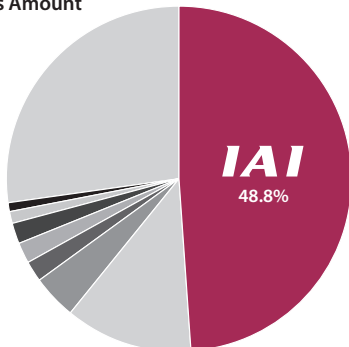
## Single Axis/Cartesian Robots Share

Japan 2021 Results (Fuji Economic Survey)

### Units Sold



### Sales Amount



## Societal Contribution

### Mini Robo



Mini Robo is a soccer robot developed by IAI. It was born out of the desire for children to experience the joy of making things. Tournaments are also held on a regular basis.

### IAI Stadium

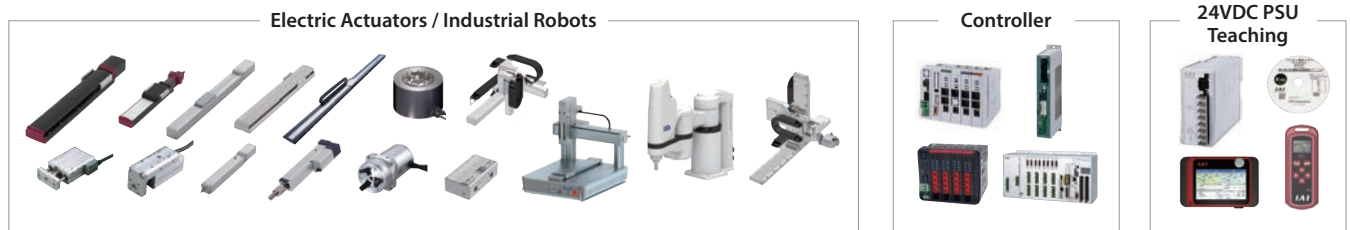


IAI supports the local Shizuoka professional soccer team, the Shimizu S-Pulse, as a sponsor. In 2013, we acquired the naming rights for Nihondaira Stadium, the home stadium of Shimizu S-Pulse.

# What IAI can do for you

## Product lineup

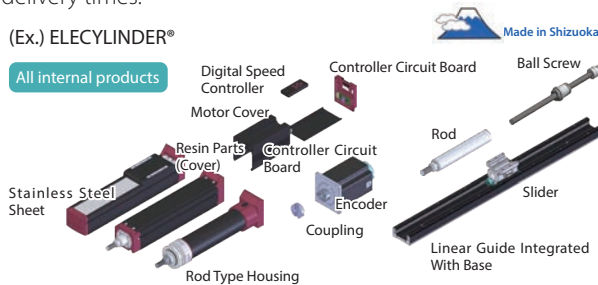
We offer the No. 1 product lineup in the electric actuator industry and a wide variety of variations. (For details, see p. 7)  
Usable for a variety of applications and conditions of use.



## Short Delivery

Major components are manufactured in-house, achieving stable delivery times.

(Ex.) ELECYLINDER®



## Long Life

No impact mechanism and no sealing material is used in sliding parts, resulting in a long service life.

(Ex.) ELECYLINDER®

Operational conditions				
Operating Days Per Year	Operating Hours	Movement Stroke	Payload	Operation Cycle
240 days	16 hours per day	300mm	Horizontal: 12kg	8 seconds per reciprocating motion

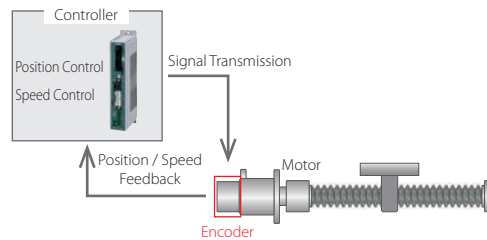
Life				
Product Specifications	Life	Operation Life	Lifespan Factors	Remarks
ELECYLINDER® (Rod type) EC-R7	15 Years	~16,000km	End of bearing life	Max speed: 155mm/s Acceleration/deceleration: 0.5G

## Quality Improvement / Cycle Time Reduction

Maximizing the advantages of electric power contributes to improved productivity.

### ● Feedback Control

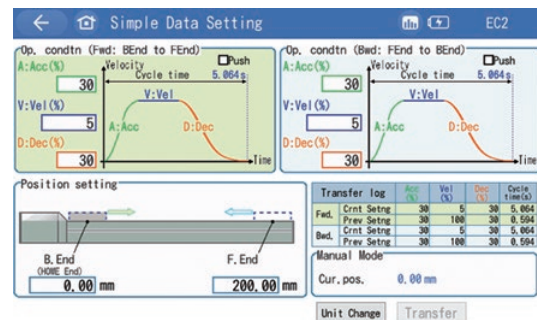
All motors, including stepper motors, are equipped with encoders. The unit continues to operate according to the command value by feedback control.



>>Feedback  
Position: 1,000 times per second  
Speed: ~20,000 times per second

### ● AVD Control

In addition to speed, acceleration and deceleration can be set respectively. Able to increase speed while reducing impact at the start and stop of movement.



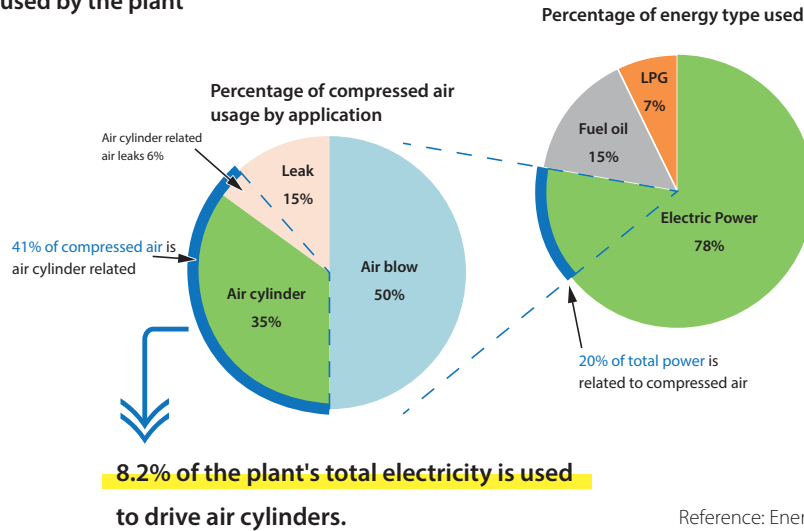
Operating conditions abbreviation: AVD  
Acceleration : Acceleration  
Velocity : Speed  
Deceleration : Deceleration

## Toward Carbon Neutrality

### Energy Saving

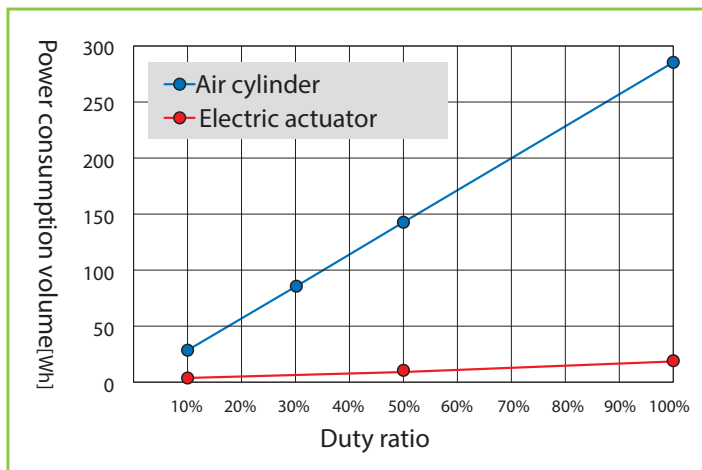
Since air is not used, power can be utilized efficiently.

#### ● Percentage of energy used by the plant



Reference: Energy Saving in Pneumatic Systems

#### ● Comparison of power consumption of air cylinders and electric actuators



Air cylinder: calculated from the amount of air used  
Electric actuator: Measured value

- Air cylinder (φ25)  
Air piping inner diameter φ4mm x 2m, stroke 300mm, 0.4MPa, 300mm/s
- Electric actuator (EC-S6H)  
Horizontal, stroke 300mm, 1G, 300mm/s, 12kg transfer

**As duty ratio (operating rate) increases, electric actuators consume less power.**

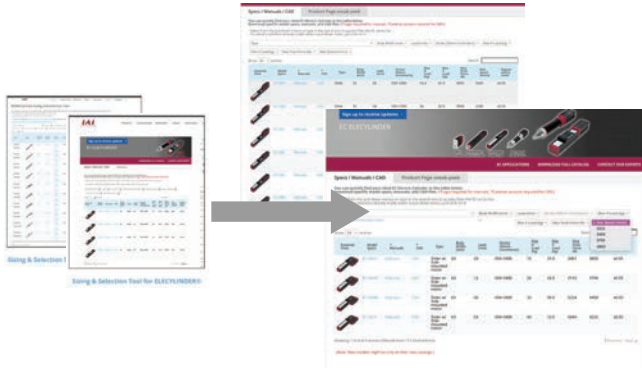
# Selection Support

## The IAI Website

Please take advantage of the useful tools on our website

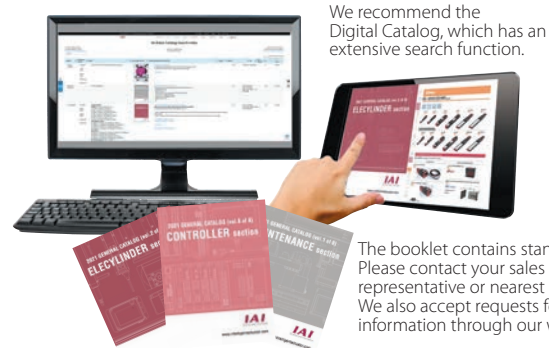
### Model Selection Software

The optimal model can be selected from approximately 1 million items in one attempt.



### Catalog

Please refer to the catalog for dimensional drawings and specification details.

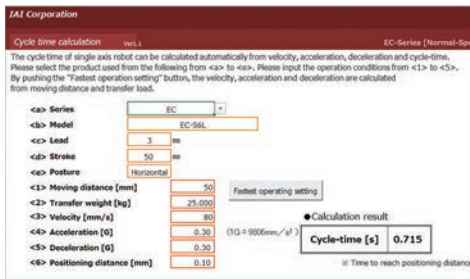


We recommend the Digital Catalog, which has an extensive search function.

The booklet contains standard prices. Please contact your sales representative or nearest sales office. We also accept requests for information through our website.

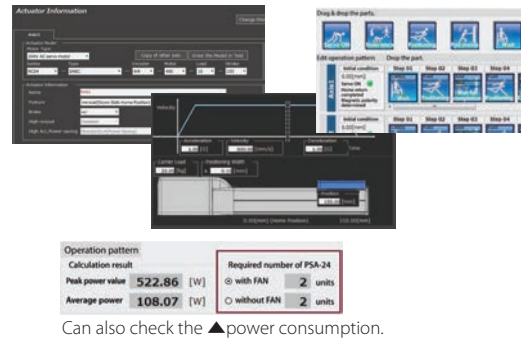
### Cycle time calculation software

The cycle time can be checked in advance by entering the actuator under consideration and the operating conditions.



### Calculator software

By entering the operating conditions of the 24V actuator under consideration, the 24V power supply capacity, cycle time, and timing chart can be confirmed.



Can also check the ▲ power consumption.

## Service

Provides support from consideration before introduction to maintenance and education after introduction.

**Special specifications supported (customization service for standard products)**

We will make proposals and modify the standard product according to your request.

**Trial seminar/Maintenance Various training sessions and on-site seminars**

We actively conduct seminars for hands-on experience with ROBO Cylinders, as well as safety lectures and maintenance training.

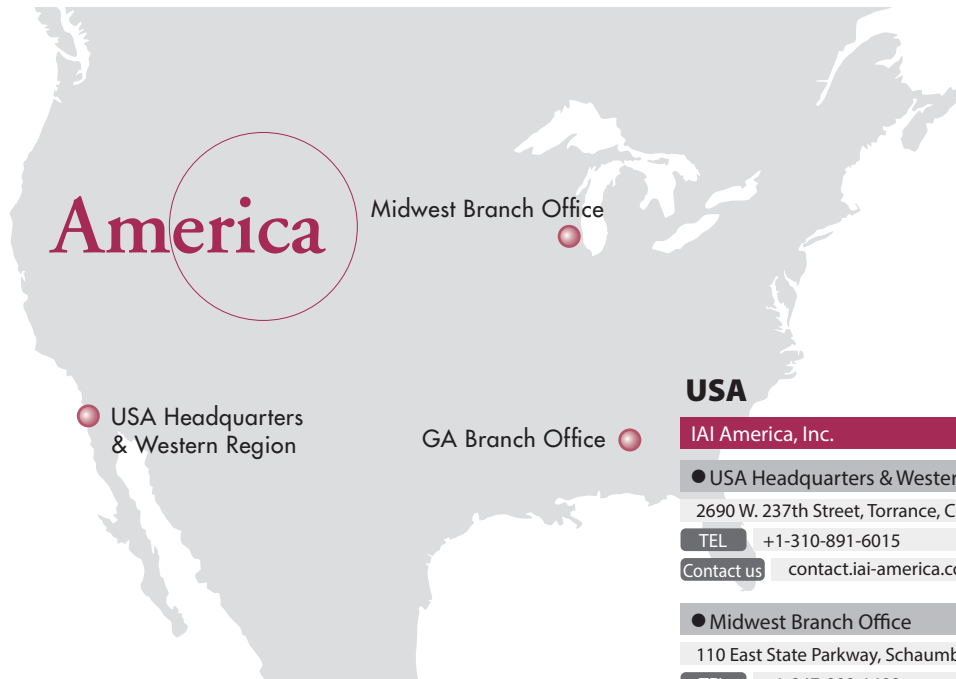
**Maintenance / Repair dedicated contact**

A dedicated maintenance and repair contact will respond smoothly to any issues that may arise.

# Support system

## Overseas Sales Companies

Support overseas with the same attention to detail as in Japan ~Technical Support at USA, Europe and Asia OCEANIA~



### USA



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### Brazil



#### CBD Mecânica Industrial Ltda.

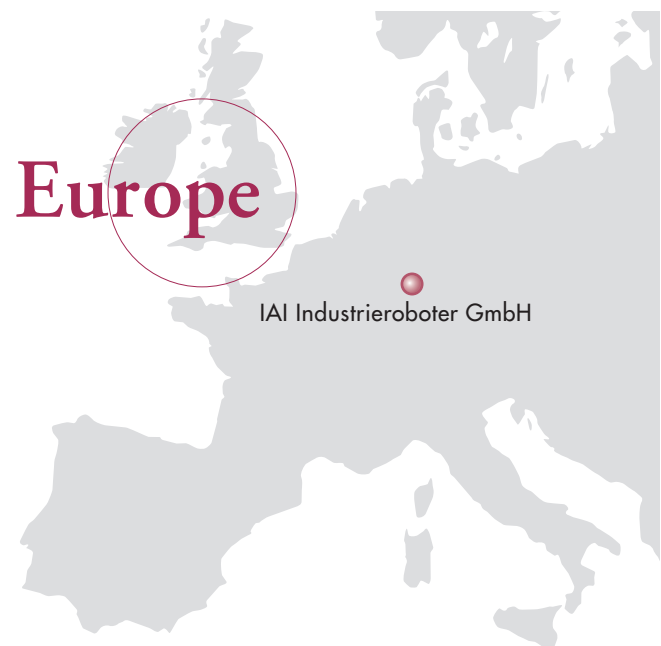
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Japanese Language Support



Technical Support



Simple Repair



Global Support



Asia

## JAPAN

### IAI Group Headquarters

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TEL +82-31-525-3500 FAX +82-31-525-3515

E-mail peter@iakorea.co.kr URL www.iakorea.co.kr

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### FEDERAL WORLD-WIDE Co., Ltd.



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URL www.kgn.com.tw

### HSIN HSIE SHIANG TRADING Co., Ltd.



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URL www.hhstc.com.tw

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E-mail info@iai-robot.co.th URL www.iai-robot.co.th

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### Standard Units Supply (Vietnam) Co., Ltd.

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## Philippines



### Standard Units Supply Philippines Corporation

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### Standard Units Supply (India) Pvt. Ltd.

43/1 Padasalai Street, Ayanambakkam, Chennai 600095, Tamil Nadu, India

TEL-FAX +91-44-49524482

# Lineup

## Product lineup list

**General Configuration** An example of the configuration required to control IAI products is shown below.

**(1) Actuator**

**(2) Controller**

**(3) Teaching Tools**

Power (Ex.) PSA-24

**\* (3) About Teaching Tools**  
 Either dedicated PC teaching software or a teaching pendant is always required for operation setup. (Not included in (1) and (2)) In the case of ELECYLINDERS, it is possible to use the digital speed controller or wireless teaching controller built into the main body, or the wired teaching controller.

**\* For Built-in Controller Type**  
 ELECYLINDER and Tabletop Robots have a built-in controller, so (2) is not necessary.

**\* About the cable**  
 Between (1) and (2): Attached to (1) when cable length is specified on the model of (1)  
 Between (2) and (3): Attached to (2) when cable length is specified on the model of (2)  
 \*For I/O and pulse-train control. For field network control, only connectors are included.

## 2-point positioning (ELECYLINDER)

Reference page ► **P11**

Type	Slider	Radial cylinder	Rod	Table	Gripper	Rotary	Stopper	Clean	Dust-proof/splash-proof
Exterior									
Body width	35~188mm	35~108mm	34~148mm	31~88mm	82~130mm	90~185mm	112/148mm	35~120mm	63/73mm
Stroke	50~2800mm	50~1000mm	10~300mm	10~150mm	10~20mm (one side)	330 Deg.	50mm	50~1500mm	50~800mm
Max. payload	Horizontal 400kg Vertical 80kg	Horizontal 300kg Vertical 150kg	Horizontal 80kg Vertical 19kg	Horizontal 20kg Vertical 6.5kg	28~360N (Max grip force, both sides)	1.5~25.2N (Max. torque)	100kg (Max. workpiece mass)	Horizontal 80kg Vertical 55kg	Horizontal 80kg Vertical 19kg
Max speed	2000mm/s	860mm/s	860mm/s	800mm/s	120mm/s	600 deg/s	350mm/s	1350mm/s	860mm/s

## Multi-point positioning

Reference Page ► **P19**

Type	Slider	Linear Servo	Rod	Radial cylinder	Table	Pulse / Servo Press	Gripper	Rotary	Special Applications
Exterior									
Body width	22~198mm	60~210mm	12~200mm	40~160mm	32~95mm	40~200mm	15~123mm	45~180mm	-
Stroke	25~3200mm	40~4155mm	10~500mm	50~800mm	25~390mm	100~520mm	2~130mm (one side)	330 Deg. 360 deg.(Infinite rotation supported)	-
Max. payload	Horizontal 400kg Vertical 80kg	Horizontal 120kg	Horizontal 1000kg Vertical 600kg	Horizontal 300kg Vertical 150kg	Horizontal 30kg Vertical 24kg	20~50,000N (Max. push force)	10~880N (Max grip force, both sides)	0.24~75N (Max. torque)	-
Max speed	3000mm/s	2500mm/s	1200mm/s	1500mm/s	1300mm/s	240mm/s	643mm/s	1800mm/s	-






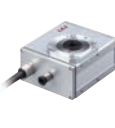
## Unit products

Reference Page ► **P25**

Type	Cartesian Robot	Tabletop Robot	Cartesian 6-Axis Robot	SCARA Robot
Exterior				
Number of Axes	2~6 axes	2~4 axes	6-axis	3~4 axes
Base axis movable range	50~4155mm	200~500mm	50~1100mm	180~1200mm
Max. payload	90kg	30kg	2kg	50kg
Max speed / Max composite speed	2500mm/s (Base axis max. speed)	1200mm/s (Base axis max. speed)	700mm/s (Max composite speed)	9215mm/s (Max composite speed)

### Cleanroom / dust-proof and splash-proof

Reference Page ▶ P29

Type	Slider	Rod	Radial cylinder	SCARA Robot	Gripper	Rotary
Exterior						
Body width	32~198mm	28~85mm	45~160mm	3~4 axes (axes qty.)	35~80mm	45~195mm
Stroke	25~2500mm	25~300mm	50~800m	300~1200mm (Arm length)	4~7mm (one side)	330 deg. 360 deg. (Infinite rotation supported)
Max. payload	Horizontal 120kg Vertical 60kg	Horizontal 100kg Vertical 70kg	Horizontal 240kg Vertical 120kg	47kg	6.4~102N (Max. grip force, both sides)	0.24~75N (Max. torque)
Max speed	2000mm/s	630mm/s	630mm/s	8098 mm/s (Max composite speed)	600mm/s	1800mm/s










### Controller

Reference Page ▶ P33

Product	RCON	RSEL	REC	PCON-CB/CGB	ACON-CB/CGB	DCON-CB/CGB	SCON2	MSEL	XSEL-RA/SA	XSEL-RAX/SAX (For SCARA Robot)
Exterior										
Max. number of connectable axes	~16 axes	~16 axes	~16 axes	1-axis	1-axis	1-axis	1-axis	~4 axes	~8 axes	~8 axes
Compatible Motor	   	   	 							
Interpolation operation	×	✓	×	×	×	×	×	✓	✓	✓
IAI Exclusive Program (SEL Language)	Not required	Required	Not required	Not required	Not required	Not required	Not required	Required	Required	Required
Supported control method	I/O (input-output)	✓	✓	×	✓	✓	✓	✓	✓	✓
	Pulse-train	×	×	×	✓	✓	✓	×	×	×
	Field Network	✓	✓	✓	✓	✓	✓	✓	✓	✓

### Other (24VDC power supply / teaching, etc.)

Reference Page ▶ P37

Type	24VDC power supply	Teaching software for PC		Teaching pendant			Wired Teaching Controller	Wireless Teaching Controller	Brake Release Box
	PSA-24(L)	IA-OS	IA-101	TB-02	TB-03	TB-02E/03E/ADTB	TBD-1	TBD-1WL	BKR-01
Exterior									
Overview	<ul style="list-style-type: none"> <li>IAI exclusive power supply.</li> <li>Power status can be monitored by connecting to R-unit (RCON/RSEL).</li> <li>Up to 5 units can be connected in parallel.</li> </ul>	<ul style="list-style-type: none"> <li>Compatible with EC, REC, and controllers with □SEL in the model name.</li> <li>Power capacity calculation tool and field network configuration tool available.</li> </ul>	<ul style="list-style-type: none"> <li>Compatible with controllers with □SEL in the model name.</li> <li>Program support tools for IXA simulation software and RSEL available.</li> </ul>	<ul style="list-style-type: none"> <li>Compatible with all ELECYLINDER listed controller models.</li> <li>Safety category compliant.</li> </ul>	<ul style="list-style-type: none"> <li>Compatible with all ELECYLINDER listed controller models.</li> <li>Supports wireless communication with ELECYLINDER.</li> </ul>	<ul style="list-style-type: none"> <li>Teaching pendant with power supply unit.</li> <li>Brake release, test run, and data setting are possible even before electrical wiring work is done.</li> </ul>	<ul style="list-style-type: none"> <li>Connectable to all ELECYLINDER.</li> </ul>	<ul style="list-style-type: none"> <li>Supports wireless communication with ELECYLINDER.</li> <li>Maximum number of simultaneously detected axes: 16.</li> </ul>	<ul style="list-style-type: none"> <li>Actuator brake release without wiring to the controller during equipment start-up.</li> </ul>



**What is ELECYLINDER?**

Like solenoid valves, ELECYLINDER can be operated with only an ON/OFF signal, making them easy to operate even for first-time users of electric actuators.

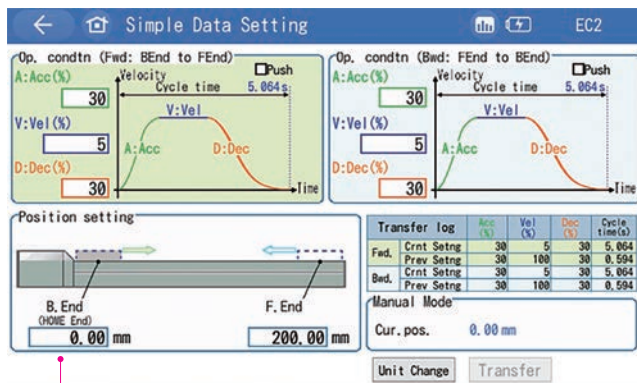
- Electric actuator based on the concept of "simple"
- Built-in controller
- Programless

**ALL IN ONE**



**Simple operation**

Enter numerical values for position, speed, acceleration, deceleration, and push force.

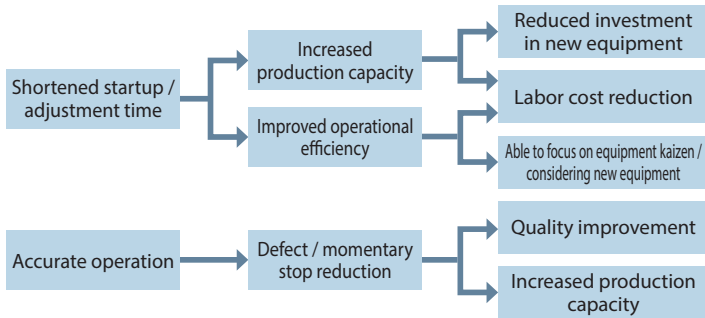


The current position can also be captured.

Can operate from a remote location!

**Is your plant going digital?**

Set numerically	➔ Can be set up accurately by anyone.
Controlled numerically	➔ At changeover, simply enter the previously confirmed values. Easy teaching even with a large number of adjustment axes.
Confirm cycle time	➔ Cycle time can be confirmed on the settings tool screen.



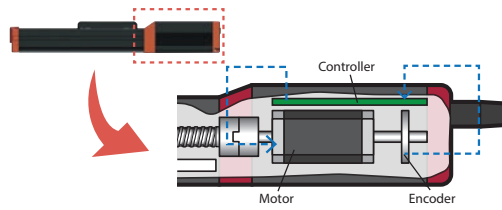
Reliable adjustments can be made without relying on intuition or experience.  
High quality manufacturing is possible because there is no misalignment or speed reduction.

Company A and Company B on a certain day

	Company A Uses air cylinder	Company B Uses ELECYLINDER
PM 17:10	Hey rookie! The speed is not at all correct!	Beep Beep
PM 17:20	It's impossible to adjust the flow valve to the same speed on several axes. What are you saying?!	For this new equipment, these are the values!
PM 17:25	If you do it often enough, eventually you will get used to it. This, too, is experience!	Are you new here? You work really fast! You can go home now! Yes! Thank you very much!
PM 22:30	They said I would get used to it, but I just don't know! Zoom! At this rate, I won't be able to go home!	Let's get ready for tomorrow by going to bed early...

## High Performance

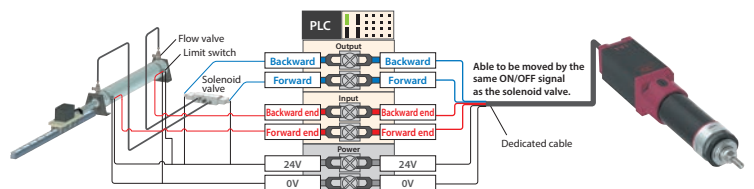
Once set, it will continue to operate at the same value.



- **Feedback Control**  
Position: 1,000 cycles/sec.  
Speed: ~20,000 cycles/sec.
- **Set-values Unit**  
Position: 0.01mm  
Speed: 0.01mm/s

## Reduced wiring

Can be operated with the same wiring and PLC ladder program as the air cylinder.



## Energy saving

Reduces power consumption and contributes to energy savings.

### Air cylinder



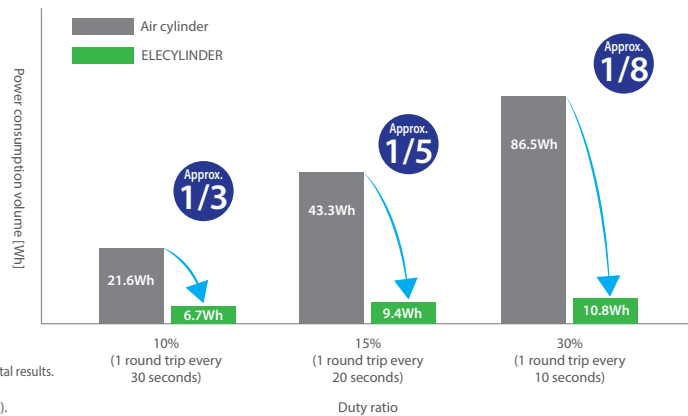
Stroke: 400 mm  
Speed: approx. 300mm/s  
Load Mass: 10kg  
Bore system: φ25  
Primary side air pressure: 0.4Mpa  
Moving distance: 400mm  
One-way travel time: approx. 1.5 sec.

### Electric (ELECYLINDER)



Stroke: 400 mm  
Speed: 300 mm/s  
Load Mass: 10kg  
Acceleration/deceleration: 0.3G  
Moving distance: 400mm  
One-way travel time: 1.5 sec.

### Power consumption comparison



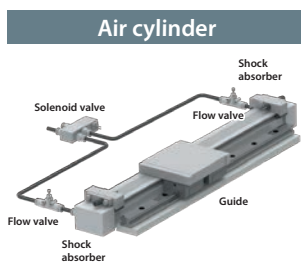
\*ELECYLINDER power consumption is calculated from calculated values based on experimental results.  
\*Air cylinders are calculated based on air consumption.  
\*Electricity per unit flow rate: 0.111 KWh/m<sup>3</sup> (using figures from our plant in FY2021).  
\*Air leakage from the air cylinder is assumed to be 0.

## Low price

Less than the price of a standard air cylinder.

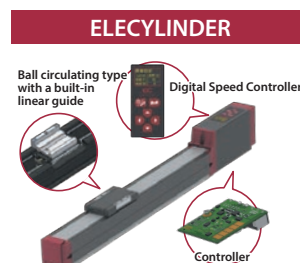
### Rodless type

The body price is almost the same. In addition, the cost of components such as speed controllers and solenoid valves is eliminated.



- ✓ Air cylinder body (with guide)
- ✓ Flow valve
- ✓ Shock absorber
- ✓ Solenoid valve

Rodless air cylinder φ25  
Stroke 300 mm

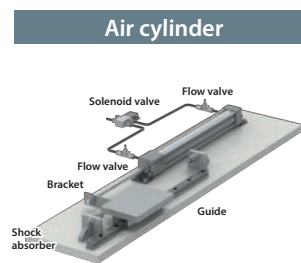


- ✓ ELECYLINDER built-in
  - Linear guide
  - Motor Encoder
  - Ball screw
  - Controller

ELECYLINDER  
DS4 with digital speed controller  
Stroke 300 mm

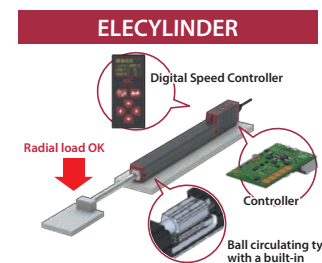
### Rod type

ELECYLINDER (radial cylinders) can apply radial loads directly to the body. Eliminates the need for external guides and connection brackets. In addition, machine design / assembly and adjustment costs can be reduced.



- ✓ Air cylinder body
- ✓ Guide
- ✓ Flow valve
- ✓ Shock absorber
- ✓ Solenoid valve

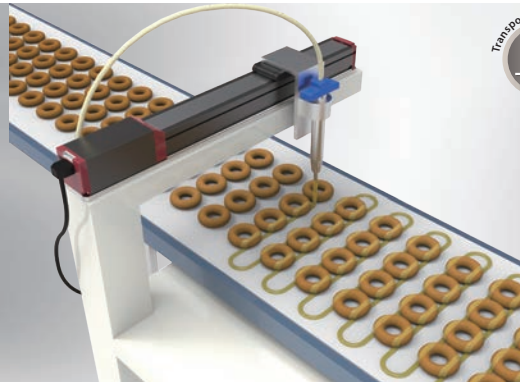
Rod type air cylinder φ25  
Stroke 300 mm



- ✓ ELECYLINDER built-in
  - Linear guide
  - Motor Encoder
  - Ball screw
  - Controller

ELECYLINDER  
DRR4 with digital speed controller  
Stroke 300 mm

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● **Catalog Download:**  
intelligentactuator.com/dg23-p13-1



● **How to select ELECYLINDER:**  
intelligentactuator.com/dg23-p13-2



● **ELECYLINDER Product Page:**  
intelligentactuator.com/dg23-p13-3

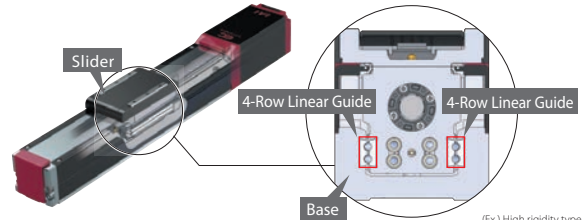


Features

The standard actuator shape is used to mount and operate a workpiece on a slider on the top surface of the body.

IAI products feature a ball circulating type with a built-in linear guide integrated with base, which is resistant to moments in the rolling direction.

- **Extensive lineup:** from palm size to large size capable of carrying up to 400kg horizontally.
- **Stable positioning:** No worry about rattling of the guide section because the guide is press-fitted into the base. Stability as a positioning device due to low guide variation ☉.



Lineup

**Ultra-compact Type EC-SL3**



24v Pulse Motor, Low price, Compact

- Ultra-compact, palm-sized type

Body width	35mm
Stroke	50~200mm
Max. payload	Horizontal 2kg / Vertical 0.7kg
Max speed	200mm/s

**Standard Type EC-S□(A)**



24v Pulse Motor, Low price, Long Ruler, High thrust

- 5 total sizes
- Motor side-mounted type is also selectable

Body width	35~85mm
Stroke	50~1500mm
Max. payload	Horizontal 80kg / Vertical 55kg
Max speed	1200mm/s

**High rigidity Type EC-S□AH**



24v Pulse Motor, Low price, Long Ruler, High rigidity

- High rigidity 4-column Gothic arc linear guide type
- Motor side-mounted type is also selectable

Body width	63/75mm
Stroke	50~1500mm
Max. payload	Horizontal 51kg / Vertical 25kg
Max speed	1440mm/s

**Wide Type EC-WS□**



24v Pulse Motor, Low price, High rigidity

- Wide body, high rigidity type
- Motor side-mounted type is also selectable

Body width	100/120mm
Stroke	50~800mm
Max. payload	Horizontal 62kg / Vertical 13.5kg
Max speed	1000mm/s

**Belt driven Type EC-B□**



24v Pulse Motor, 200v AC servo motor, Low price, Long Ruler, High speed

- Belt-driven long actuator
- Motor with top/bottom mounting can be selected

Body width	63~89mm
Stroke	300~2600mm
Max. payload	Horizontal 25kg
Max speed	2000mm/s

**Large Type EC-S1□**



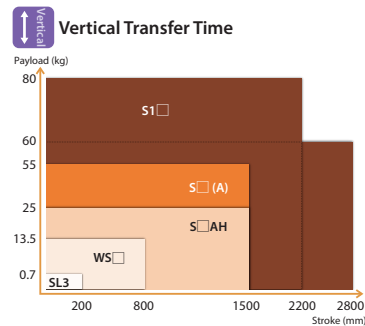
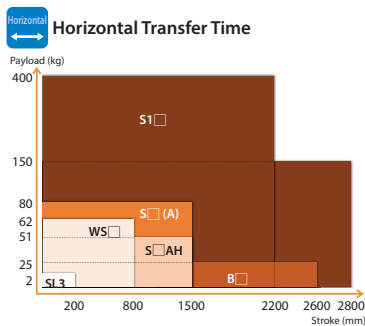
200v AC servo motor, Low price, Long Ruler, High rigidity, High thrust, High speed

- Large actuator with high thrust

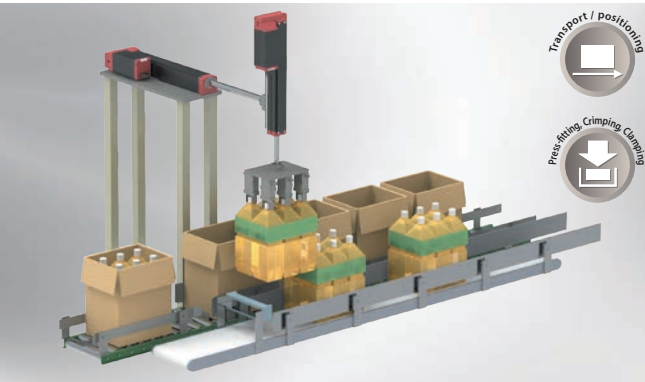
Body width	100~188mm
Stroke	100~2800mm
Max. payload	Horizontal 400kg / Vertical 80kg
Max speed	2000mm/s

Specifications Overview

Correlation Diagram of Stroke and Payload



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● Radial Cylinder Catalogs:  
intelligentactuator.com/dg23-p14-1



● How to select ELECYLINDER:  
intelligentactuator.com/dg23-p14-2



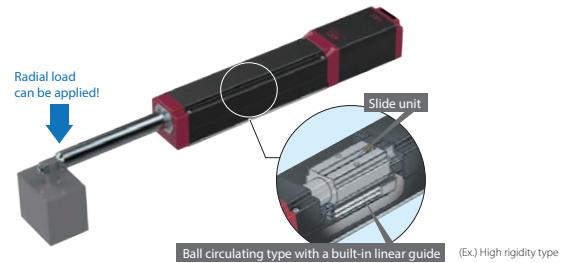
● EC Radial Cylinder features:  
intelligentactuator.com/dg23-p14-3



Features

A ball circulating type with a built-in linear guide similar to the slider type is built into the rod type body. Radial and unbalanced loads can be directly received by the cylinder body.

- **Linearity:** Integrated structure with built-in linear guide suppresses tip runout
- **High thrust:** max. payload Horizontal 300kg / Vertical 150kg, max. pushing force up to 6000N



Lineup

Standard Type **EC-RR□**



- 6 total sizes
  - Motor side-mounted type is also selectable
- |              |                                   |
|--------------|-----------------------------------|
| Body width   | 35~108mm                          |
| Stroke       | 50~800mm                          |
| Max. payload | Horizontal 300kg / Vertical 150kg |
| Max speed    | 860mm/s                           |

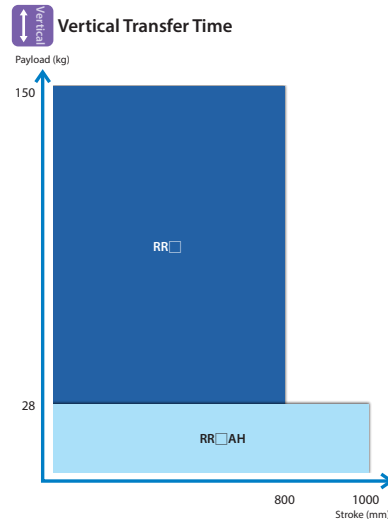
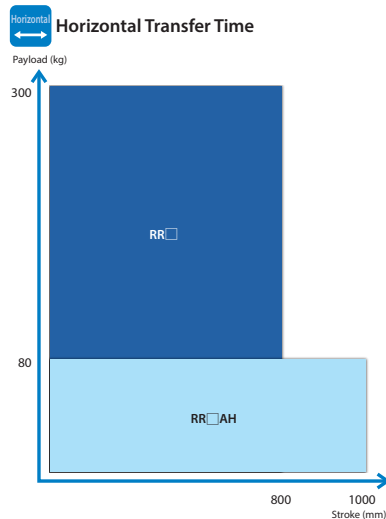
High rigidity Type **EC-RR□AH**



- High rigidity 4-column Gothic arc linear guide type
  - Motor side-mounted type is also selectable
- |              |                                 |
|--------------|---------------------------------|
| Body width   | 63/75mm                         |
| Stroke       | 50~1000mm                       |
| Max. payload | Horizontal 80kg / Vertical 28kg |
| Max speed    | 860mm/s                         |

Specifications Overview

Correlation Diagram of Stroke and Payload



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● **Catalog Download:**  
intelligentactuator.com/dg23-p15-1



● **How to select ELECYLINDER:**  
intelligentactuator.com/dg23-p15-2



● **EC Table Type features:**  
intelligentactuator.com/dg23-p15-3



Features

- Rod type -

An inexpensive actuator in which the rod operates in the same way as a rod type air cylinder.

■ Extensive Lineup

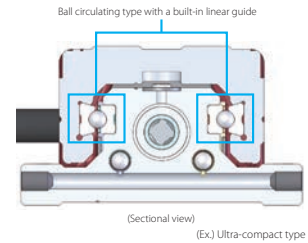
Ultra-compact type, guide type, ball bushing type for lifter applications, etc., can be selected according to the application.

- Table type -

The table on the top of the body operates. With a built-in ball circulating type with a built-in linear guide in the table section, it can handle load moments in any direction.

■ Compact

Guide, motor, encoder, and controller built-in to a palm-sized body



Lineup

Rod type

**Ultra-compact Type** **EC-GDS3/GDB3**



○ Ultra-compact, palm-sized type

Body width	42mm
Stroke	10~50mm
Max. payload	Horizontal 2kg / Vertical 0.8kg
Max speed	200mm/s

**Standard Type** **EC-R6/R7**



○ Cylindrical rod type

Body width	63/73mm
Stroke	50~300mm
Max. payload	Horizontal 80kg / Vertical 19kg
Max speed	860mm/s

Table type

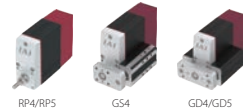
**Ultra-compact Type** **EC-T3**



○ Ultra-compact, palm-sized type

Body width	32mm
Stroke	10~50mm
Max. payload	Horizontal 2kg / Vertical 0.8kg
Max speed	200mm/s

**Mini Type** **EC-RP4/RP5/ GS4/GD4/GD5**



○ Overall shortened length type

Body width	34~112mm
Stroke	30~150mm
Max. payload	Horizontal 35kg / Vertical 6.5kg
Max speed	800mm/s

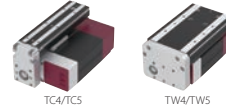
**Double guide Type** **EC-SRG11/SRG15**



○ Ball bushing type

Body width	112/148mm
Stroke	50~300mm
Max. payload	Horizontal 60kg / Vertical 12.5kg
Max speed	800mm/s

**Mini Type** **EC-TC4/TC5/ TW4/TW5**



○ Overall shortened length type

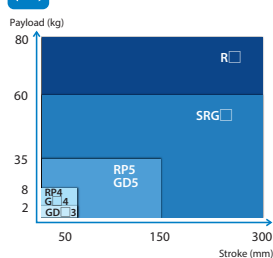
Body width	31~88mm
Stroke	30~150mm
Max. payload	Horizontal 20kg / Vertical 6.5kg
Max speed	800mm/s

Specifications Overview

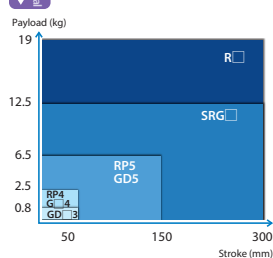
Correlation Diagram of Stroke and Payload

- Rod type -

**Horizontal Transfer Time**

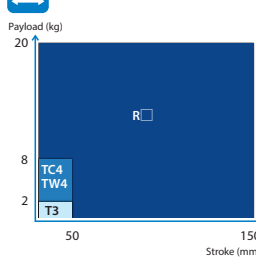


**Vertical Transfer Time**

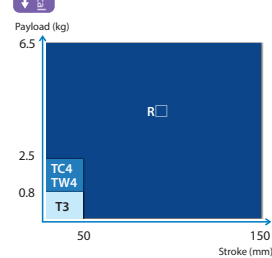


- Table type -

**Horizontal Transfer Time**

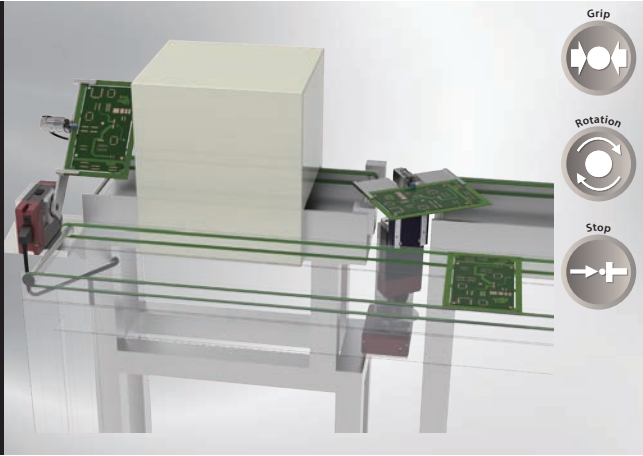


**Vertical Transfer Time**





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● **ELECYLINDER Gripper Type**  
intelligentactuator.com/dg23-p16-1



● **ELECYLINDER Rotary Type**  
intelligentactuator.com/dg23-p16-2



● **ELECYLINDER Stopper Type**  
intelligentactuator.com/dg23-p16-3

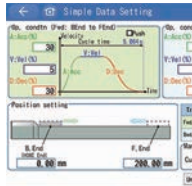


Features

- Gripper -

The clamping force can be adjusted in 1% increments, enabling clamping of easily bent workpieces.

■ Easy setup  
Simply input the clamping force, standby position, and clamping start point numerically.



- Rotary -

Rotary actuator with built-in controller and reduced height.

■ Built-in controller  
The rotary with built-in controller is the first in the industry with adjustable speed control, allowing smooth stopping even at high speeds.

- Stopper -

Ideal for stopping workpieces on conveyors without an air source.

■ Sliding bushing construction, sliding bushings allow for radial loads.



Lineup

**Gripper Type** **EC-GRB** □

24v Pulse Motor Low price

○ 3 Total Types

Body width	82~130mm
Stroke (one side)	10~20mm
Max grip force (both sides)	28~360N

**Rotary Type** **EC-RTC** □

24v Pulse Motor Low price

○ 3 Total Types

Body width	90~185mm
Operation range	0~330 deg.
Max. torque	1.5~25.2N
Allowable inertia moment	~0.49kg·m <sup>2</sup>

**Stopper Type** **EC-ST11/15**

24v Pulse Motor Low price

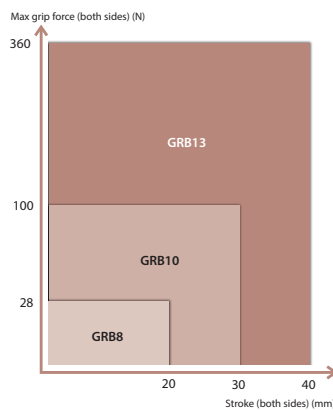
○ 2 Total Types

Body width	112/148mm
Stroke	50mm
Max. workpiece mass	100kg

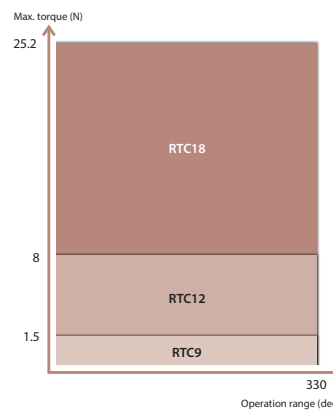
Specifications Overview

Correlation chart between stroke and max. gripping force/operation range and max. torque

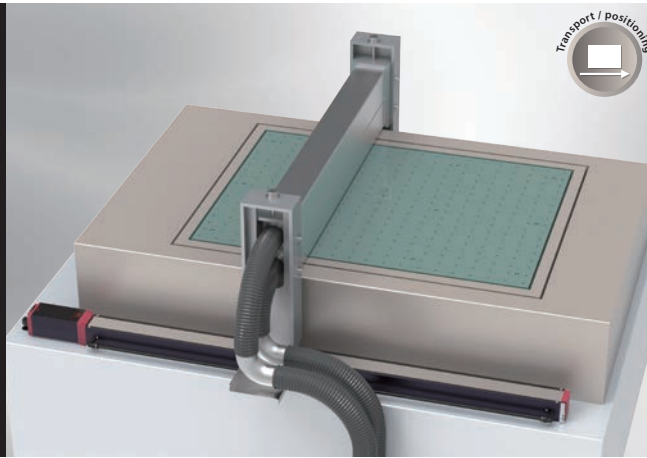
- Gripper -



- Rotary -



ELECYLINDER



● EC Cleanroom Type Catalog:  
intelligentactuator.com/dg23-p17-1



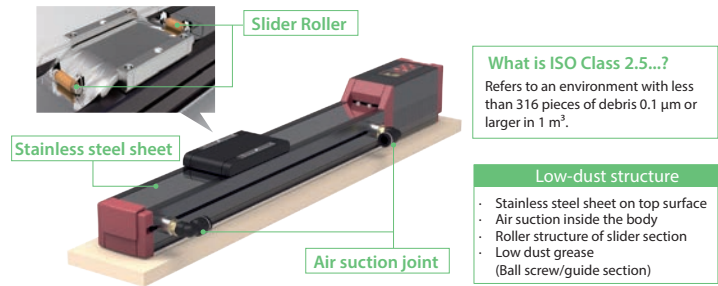
● EC Cleanroom Specification:  
intelligentactuator.com/dg23-p17-2



Features

The system is ISO class 2.5/3 compliant, making it ideal for operation in clean environments. (ISO 14644-1)

- **Extensive Lineup:** From compact type to Horizontal 80kg high payload type.
- **Unlimited installation orientation:** Sealed construction allows for Vertical or Horizontal installation.



**What is ISO Class 2.5...?**  
Refers to an environment with less than 316 pieces of debris 0.1 μm or larger in 1 m<sup>3</sup>.

- Low-dust structure**
- Stainless steel sheet on top surface
  - Air suction inside the body
  - Roller structure of slider section
  - Low dust grease (Ball screw/guide section)

Lineup

**Standard Type EC-S□(A)CR**

24v Pulse Motor, Low price, Long Ruler, High thrust

- 5 total sizes
- ISO Class 3 (ISO 14644-1 Std.)

Body width	35~85mm
Stroke	50~1500mm
Max. payload	Horizontal 80kg / Vertical 55kg
Max speed	1200mm/s

**High rigidity Type EC-S□AHCR**

24v Pulse Motor, Low price, Long Ruler, High rigidity

- High rigidity 4-column Gothic arc linear guide type
- ISO Class 2.5 (ISO 14644-1 Std.)

Body width	63/75mm
Stroke	50~1500mm
Max. payload	Horizontal 51kg / Vertical 25kg
Max speed	1350mm/s

**Wide Type EC-WS□CR**

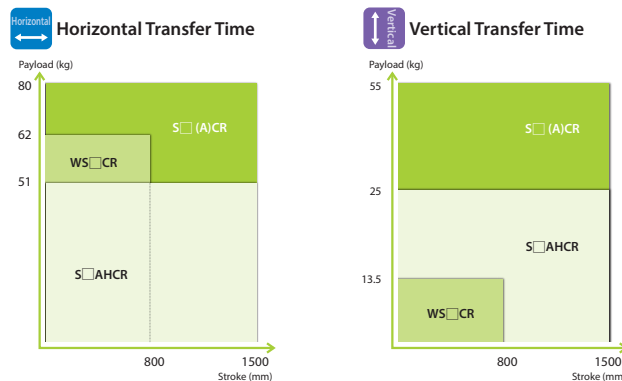
24v Pulse Motor, Low price, High rigidity

- Wide body, high rigidity type
- ISO Class 3 (ISO 14644-1 Std.)

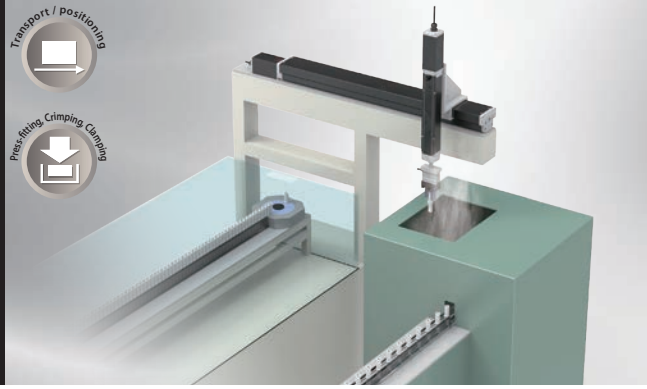
Body width	100/120mm
Stroke	50~800mm
Max. payload	Horizontal 62kg / Vertical 13.5kg
Max speed	900mm/s

Specifications Overview

Correlation Diagram of Stroke and Payload



ELECYLINDER



● **Catalog Download:**  
intelligentactuator.com/dg23-p18-1



● **EC Dust/Splash-proof Specification:**  
intelligentactuator.com/dg23-p18-2










Features

IP40~67 rating allows use in water and dusty environments. It is used in processing machines, food processing machines, washing machines, etc.

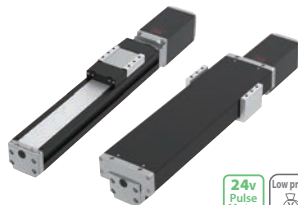
■ **Grease options:** Optional grease for food machinery can be selected.

■ **Integrated guide:** Slider type/radial cylinders have a built-in ball circulating type with a built-in linear guide as in the standard environment version, so that moment loads in the rolling direction can be accommodated.

Ingress protection display	Dust-proof Specification	Dust-proof/splash-proof specification	Dust-proof/splash-proof specification
Ingress protection display IP <input type="checkbox"/> <input type="checkbox"/> 1st Display Number Protection against human body and solid foreign objects 2nd Display Number Protection from water ingress			
	EC-S□D	EC-S□W	EC-S□W (Wiper seal installation specifications)
Ingress protection	IP40	IP43	IP54 or equivalent
1st Display Number Description	No tools, wires, or other solid objects exceeding 1.0 mm in diameter or thickness can penetrate.	 Thickness 1.0 mm	Dust that will affect operation will not enter the interior.
2nd Display Number Description	Unprotected	Rainproof No harmful effects from water drops falling within 60° from the vertical. 	Splashproof Not adversely affected by splashing water from any direction. 
			Waterproof Water does not enter the interior even when submerged under water under defined conditions. 

Lineup

Standard Type Slider type  
**EC-S□D/S□W**



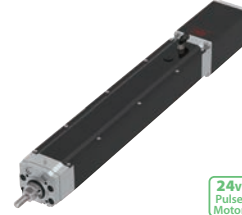
○ IP40~54 or equivalent  
 Body width 63/73mm  
 Stroke 50~800mm  
 Max. payload Horizontal 51kg / Vertical 19kg  
 Max speed 860mm/s

Standard Type Rod type  
**EC-R□W**



○ IP67  
 Body width 63/73mm  
 Stroke 50~300mm  
 Max. payload Horizontal 80kg / Vertical 19kg  
 Max speed 860mm/s

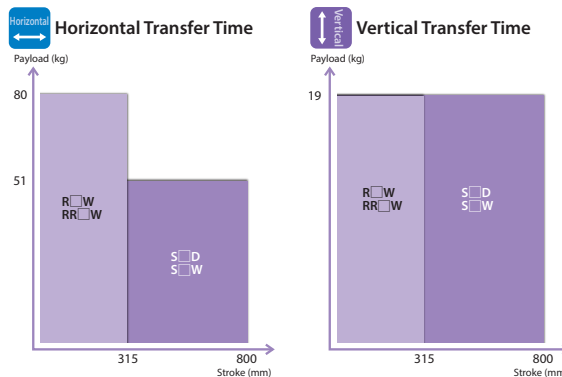
Standard Type Radial Cylinder®  
**EC-RR□W**



○ IP67  
 Body width 63/73mm  
 Stroke 65~315mm  
 Max. payload Horizontal 80kg / Vertical 19kg  
 Max speed 860mm/s

Specifications Overview

Correlation Diagram of Stroke and Payload



**ROBO Cylinder  
Single-axis  
robot**



● **Catalog Download**  
intelligentactuator.com/dg23-p19-1



● **Slider Type Lineup:**  
intelligentactuator.com/dg23-p19-2



**Features**

The standard actuator shape is used to mount and operate a workpiece on a slider on the top surface of the body. IAI products feature a ball circulating type with a built-in linear guide integrated with base, which is resistant to moments in the rolling direction.

■ **Extensive Lineup**

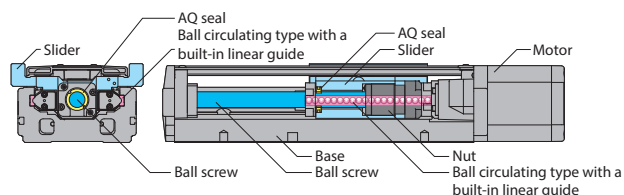
A variety of types are available to suit the application, from the compact sliding screw type to the long-stroke, low-cost belt-driven type, multi-slider compatible type, etc.

■ **Stable Positioning**

Guide is press-fitted into the base, so there is no risk of rattling of the guide section.

■ **High precision**

Positioning repeatability up to 3µm  
Ideal for equipment requiring high running accuracy and high precision positioning when combined.



(Ex) Single Axis Robot

**Lineup**

**ROBO Cylinder RCP6 Series**  
**RCP6-SA□ / HSA□ C / WSA□**

SA□ HSA6C/7C WSA□

24v Pulse Motor Low price High rigidity

- 8 total sizes
- Motor side-mounted type is also selectable

Body width	40~160mm
Stroke	50~1100mm
Max. payload	Horizontal 100kg / Vertical 55kg
Max speed	1440mm/s

**ROBO Cylinder RCP5 Series**  
**RCP5-BA□**

24v Pulse Motor Low price Long Ruler

- Belt-driven type
- Motor with top/bottom mounting can be selected

Body width	40~70mm
Stroke	30~2600mm
Max. payload	Horizontal 16kg
Max speed	1600mm/s

**ROBO Cylinder RCP3 Series**  
**RCP3-SA2□**

24v Pulse Motor Low price Compact

- Mini and compact type sliding screws can be selected

Body width	22/28mm
Stroke	25~150mm
Max. payload	Horizontal 1kg
Max speed	300mm/s

**ROBO Cylinder RCS4 Series**  
**RCS4-SA□ / HSA□ C / WSA□**

SA□ HSA6C/7C WSA□

200v AC servo motor Low price High rigidity High speed

- 8 total sizes
- Motor side-mounted type is also selectable

Body width	40~160mm
Stroke	50~1100mm
Max. payload	Horizontal 120kg / Vertical 50kg
Max speed	2200mm/s

Single Axis Robot  
**IS(P)B**  
ISB Series



- 200v AC servo motor
- Long Ruler
- High rigidity
- High thrust
- High speed
- High precision

- High precision type (Positioning repeatability:  $\pm 3\mu\text{m}$ ) also selectable

Body width	90~198mm
Stroke	100~3000mm
Max. payload	Horizontal 400kg / Vertical 80kg
Max speed	2500mm/s

Single Axis Robot  
**IS(P)DB**  
ISDB Series



- 200v AC servo motor
- High rigidity
- High speed

- Simple dustproof type with stainless steel sheet

Body width	90~150mm
Stroke	100~1600mm
Max. payload	Horizontal 120kg / Vertical 40kg
Max speed	2200mm/s

Single Axis Robot  
**SSPA**  
SSPA Series



- 200v AC servo motor
- High rigidity
- High speed

- High rigidity type with metal base

Body width	100~155mm
Stroke	50~1500mm
Max. payload	Horizontal 120kg / Vertical 25kg
Max speed	2500mm/s

Single Axis Robot  
**NSA**  
NSA Series



- 200v AC servo motor
- Long Ruler
- High rigidity
- High speed

- Rotating nut type
- Multi-sliders can also be selected

Body width	125~198mm
Stroke	300~3000mm
Max. payload	Horizontal 120kg
Max speed	2500mm/s

Single Axis Robot  
**IFA**  
IFA Series



- 200v AC servo motor
- Long Ruler
- High speed

- Belt-driven type
- Motor with top/bottom mounting can be selected

Body width	105/134mm
Stroke	200~3200mm
Max. payload	Horizontal 40kg
Max speed	3000mm/s

Single Axis Robot  
**LSA/LSAS**  
LSA Series



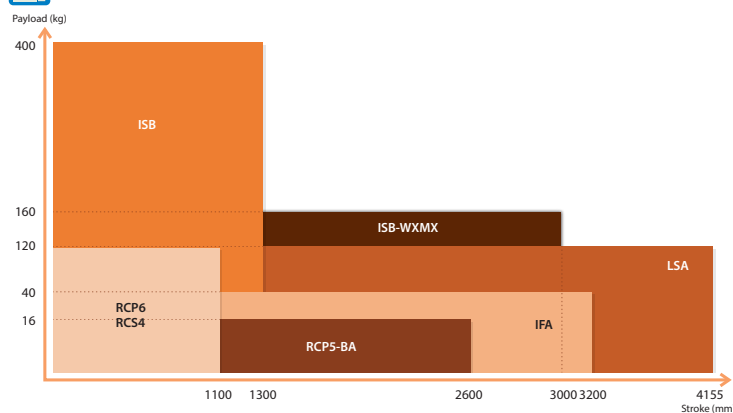
- 200v AC servo motor
- Long Ruler
- High rigidity
- High speed
- High precision

- Linear servo type
- Multi-sliders can also be selected

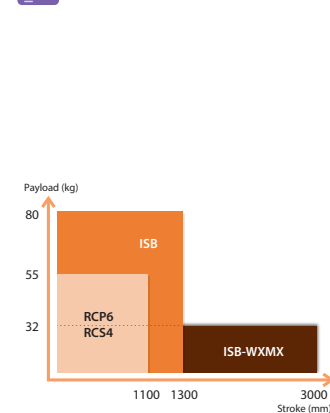
Body width	60~210mm
Stroke	40~4155mm
Max. payload	Horizontal 120kg
Max speed	2500mm/s

Specifications Overview Correlation Diagram of Stroke and Payload

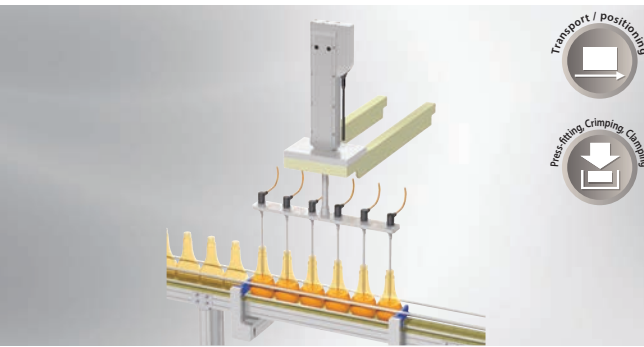
Horizontal Transfer Time



Vertical Transfer Time



**ROBO Cylinder**



● **Catalog Download**  
intelligentactuator.com/dg23-p21-1



● **Rod Type Lineup:**  
intelligentactuator.com/dg23-p21-2



**Features**

**- Rod type -**

This is an inexpensive actuator in which the rod operates in the same way as a rod type air cylinder.

■ **Extensive Lineup**  
Selectable from pen size to maximum pressing force of 2t to suit the application.

**- Radial Cylinder -**

A ball circulating type with a built-in linear guide is built into the rod type body. Radial and unbalanced loads can be directly received by the cylinder body.

■ **Linearity**  
Integrated structure with built-in linear guide suppresses tip runout.

**Lineup**

**ROBO Cylinder RCP6 Series RCP6-RA□/RRA□/WRA□**



- 8 total sizes
- Motor side-mounted type is also selectable

Body width	40~160mm
Stroke	50~800mm
Max. payload	Horizontal 100kg / Vertical 70kg
Max speed	1120mm/s



**ROBO Cylinder RCP5 Series RCP5-RA10□**



- High thrust type
- Motor side-mounted type is also selectable

Body width	108mm
Stroke	500~800mm
Max. payload	Horizontal 300kg / Vertical 150kg
Max speed	250mm/s



**ROBO Cylinder RCP3 Series RCP3-RA2□**



- Compact and mini type

Body width	22/28mm
Stroke	25~150mm
Max. payload	Horizontal 8kg / Vertical 2.5kg
Max speed	300mm/s



**ROBO Cylinder RCP2 Series RCP2-SR□4R**



- Overall length shortening type
- Guide type is also available

Body width	44/45mm
Stroke	20~200mm
Max. payload	Horizontal 35kg / Vertical 15kg
Max speed	250mm/s



**ROBO Cylinder RCD Series RCD**



- Ultra-compact type with a cross section size of □12 mm

Body width	12mm
Stroke	10~30mm
Max. payload	Horizontal 0.7kg / Vertical 0.3kg
Max speed	300mm/s



**ROBO Cylinder RCS4 Series RCS4-RA□/RRA□/WRA□**



- 8 total sizes
- Motor side-mounted type is also selectable

Body width	40~160mm
Stroke	50~800mm
Max. payload	Horizontal 100kg / Vertical 72kg
Max speed	1500mm/s



**ROBO Cylinder RCA2 Series RCA2**



- Overall length shortening type
- Guide type is also available

Body width	28~72mm
Stroke	30~75mm
Max. payload	Horizontal 6kg / Vertical 1.5kg
Max speed	300mm/s



**ROBO Cylinder RCS3 Series RCS3-RA15R/20R**



- Max. 2t push force

Body width	150/200mm
Stroke	100~500mm
Max. payload	Horizontal 1000kg / Vertical 600kg
Max speed	400mm/s



**ROBO Cylinder RCS2 Series RCS2**



- Overall length shortening type
- Guide type is also available

Body width	46~94mm
Stroke	50~300mm
Max. payload	Horizontal 55kg / Vertical 22.5kg
Max speed	800mm/s



**RCS2-RA13R**



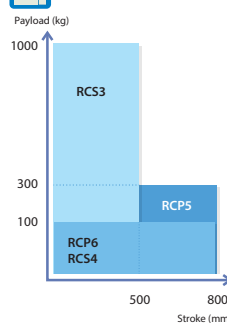
- Max. approx. 2t push force

Body width	130mm
Stroke	50~200mm
Max. payload	Horizontal 500kg / Vertical 300kg
Max speed	125mm/s

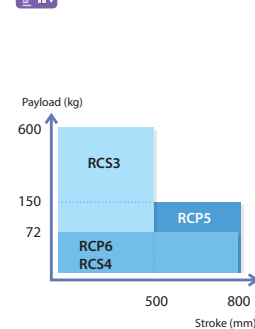


**Specifications Overview Correlation Diagram of Stroke and Payload**

**Horizontal Transfer Time**



**Vertical Transfer Time**



**ROBO Cylinder**



● **Catalog Download**  
[intelligentactuator.com/dg23-p22-1](http://intelligentactuator.com/dg23-p22-1)



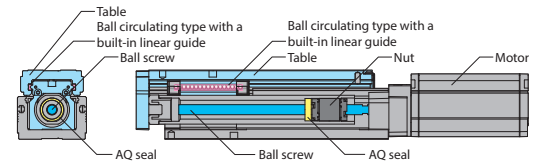
● **Table Type Lineup:**  
[intelligentactuator.com/dg23-p22-2](http://intelligentactuator.com/dg23-p22-2)



**Features**

The table on the top of the body operates. With a built-in ball circulating type with a built-in linear guide in the table section, it can handle load moments in any direction. Used for clamping workpieces from the left and right sides, for workpiece widening mechanisms and for orthogonal combination axes such as the Vertical axis.

■ **Extensive Lineup**  
 Selectable according to application from high load moment type to compact size with nut rotation



**Lineup**

**ROBO Cylinder RCP6 Series** **RCP6-TA**

24v Pulse Motor, Low price, High rigidity

- 3 total sizes
- Motor side-mounted type is also selectable

Body width	40~70mm
Stroke	25~390mm
Max. payload	Horizontal 30kg / Vertical 24kg
Max speed	1120mm/s

**ROBO Cylinder RCS4 Series** **RCS4-TA**

200v AC servo motor, Low price, High rigidity

- 3 total sizes
- Motor side-mounted type is also selectable

Body width	40~70mm
Stroke	25~390mm
Max. payload	Horizontal 30kg / Vertical 24kg
Max speed	1300mm/s

**ROBO Cylinder RCA2 Series** **RCA2-T**

24v AC servo motor, Low price, Compact

- Overall length shortening type

Body width	32~71mm
Stroke	30 / 50mm
Max. payload	Horizontal 6kg / Vertical 1.5kg
Max speed	300mm/s

**ROBO Cylinder RCS2 Series** **RCS2-T**

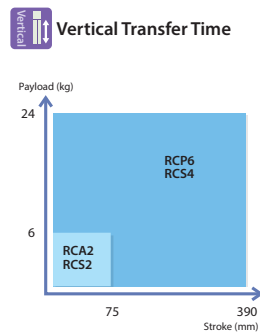
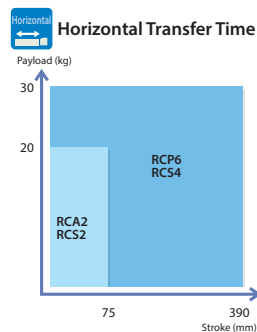
200v AC servo motor, Low price, Compact

- Overall length shortening type

Body width	48~95mm
Stroke	50 / 75mm
Max. payload	Horizontal 20kg / Vertical 6kg
Max speed	380mm/s

**Specifications Overview**

**Correlation Diagram of Stroke and Payload**



**MULTI-POSITION**

**Pulse Presses / Servo Presses / Special Application Models**

Can be used for high-precision load control and special applications.

**ROBO Cylinder**



● **Catalog Download**  
intelligentactuator.com/dg23-p23-1



● **Special Purpose**  
intelligentactuator.com/dg23-p23-2



● **Stopper Cylinder RCP4-ST**  
intelligentactuator.com/dg23-p23-3



**Features**

**- Pulse Press -**

Actuator that enables force control by combining a stepper motor and load cell.

■ **Low price / Simple**

Equipped with a stepper motor, the price is less than half of the servo press specifications and can be easily set up with a teaching tool.

■ **Can be pushed and pulled**  
Load direction push and pull functionality with unlimited push/pull time.

No.	Position [mm]	Speed [mm/s]	Acceleration [m/s <sup>2</sup> ]	Deceleration [m/s <sup>2</sup> ]	Operation type	Positioning load [kg]	Push force [N]	Step position
0								
1	0.00	200.00	0.50	0.50	Positioning	0.10	20.00	0 absolute position
2	50.00	200.00	0.30	0.30	Push (DPL)		20.00	0 absolute position
3								
4								

**- Servo Press -**

Actuator that combines a servo motor with a load cell to provide high precision force control.

■ **High precision**

A wide variety of press motions difficult to achieve with hydraulic pressure.

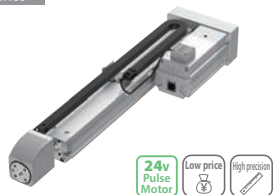


**- Special Applications Model -**

Can be used for various applications, such as a stopper to stop a conveyor workpiece or a model that can realize two types of motions with a single actuator.

**Lineup**

**ROBO Cylinder Pulse Press RCP6 Series RCP6-RRAR**



24v Pulse Motor, Low price, High precision

- 3 total sizes
- Body width 40~73mm
- Stroke 110~320mm
- Max. push / Tensile strength 2000N
- Max. payload Horizontal 10kg, Vertical 10kg
- loading repeatability ±1.0% F.S.

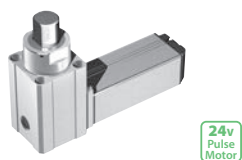
**ROBO Cylinder Servo Press RCS3/2 Series RCS3-/RCS2-RAAR**



200v AC servo motor, High thrust, High precision

- 8 total sizes
- Body width 40~200mm
- Stroke 50~520mm
- Max. push / Tensile strength 50000N
- Rated thrust 126~25902N
- loading repeatability ±0.5% F.S.

**ROBO Cylinder Stopper cylinder RCP4 Series RCP4-ST**



24v Pulse Motor

- Stopper cylinder for stopping workpieces on the conveyer
- Body width 42/60mm
- Stroke 20/30mm
- Max. workpiece mass 150kg
- Max. workpiece impact speed 40mm/s (m/min)

**ZR Series Vertical/rotation integrated ZR**



200v AC servo motor

- Unit type with vertical and rotational axis in one
- Stroke Z Axis: ~200mm, R-axis: ±360 deg.
- Max. payload 6kg

**WU Series Wrist Unit WU**



24v Pulse Motor

- Wrist unit with oscillating and rotational axis in one
- Operation range B-axis: ~±105 deg., T-axis: ±360 deg.
- Max. payload 2kg

**RCP6 Series Rotary Chuck RCP6-RTCK**

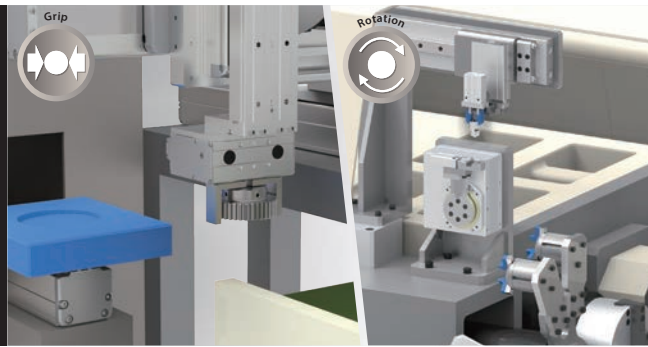


24v Pulse Motor

- Rotation and grip in one unit
- Rotational operation range 0~360 deg.
- Grip stroke 2mm
- Max grip force (both sides) 20N



**ROBO Cylinder Single-axis robot**



● **Catalog Download**  
intelligentactuator.com/dg23-p24-1



● **Gripper**  
intelligentactuator.com/dg23-p24-2



● **Rotary**  
intelligentactuator.com/dg23-p24-3



**Features**

**- Gripper -**

Since a large number of gripping points and gripping forces can be set, there is no need to adjust the setup.

- Supports workpiece identification  
Zone signal function outputs a signal when the machine moves to an arbitrary position, enabling workpiece identification and pass/fail judgment.

**- Rotary -**

330 degree and multi-turn specifications are selectable. Infinite rotation in one direction is also supported.

- Extensive Lineup  
Compact to large, vertical, flat, etc., the most suitable model for your equipment can be selected.

**Lineup**

Gripper

Rotary

**GRS/GRM**  
Solenoid gripper Series

Low price, Compact

- Solenoid-driven compact gripper

Body width	26/32mm
Stroke (one side)	2mm
Max grip force (both sides)	20N

**RCD**  
ROBO Cylinder RCD Series

24v push-to-DC motor type, Low price, Compact

- Ultra-compact, palm-sized type gripper

Body width	22mm
Stroke (one side)	2mm
Max grip force (both sides)	10N

**RCP6-GRT7**  
ROBO Cylinder RCP6 Series

24v Pulse Motor

- Flat shape type with height of 39mm

Body width	91/123mm
Stroke (one side)	15~40mm
Max grip force (both sides)	300N

**RCP6-GRST**  
ROBO Cylinder RCP6 Series

24v Pulse Motor, Long Ruler

- Long Stroke Gripper
- Motor side-mounted type is also selectable

Body width	58/70mm
Stroke (one side)	90~130mm
Max grip force (both sides)	880N

**RCP2-RT**  
ROBO Cylinder RCP2 Series

24v Pulse Motor, Low price

- 6 total models

Body width	45~114mm
Operation range	330/360 deg. (multi-rotation)
Max. torque	4.6N
Allowable inertia moment	~0.03 kg·m <sup>2</sup>

**RCS2-RTC**  
ROBO Cylinder RCS2 Series

200v AC servo motor, high thrust

- Hollow type

Body width	135~233mm
Operation range	330/360 deg. (multi-rotation)
Max. torque	8.6N
Allowable inertia moment	~0.17kg·m <sup>2</sup>

**DDA**  
Single Axis Robot DDA Series

200v AC servo motor, high thrust, high precision

- Large diameter direct drive motor

Body width	180mm
Operation range	360 deg. (multi-rotation)
Max. torque	~75N
Allowable inertia moment	~1.8kg·m <sup>2</sup>

**RCP6-RTFML**  
ROBO Cylinder RCP6 Series

24v Pulse Motor

- Φ49 Large caliber hollow shaft

Operation range	±180 deg.
Max. torque	5.2N
Allowable inertia moment	~0.08kg·m <sup>2</sup>

**RCP4-GR**  
ROBO Cylinder RCP4 Series

24v Pulse Motor

- 6 total models

Body width	34~60mm	
Slide	Lever	
Stroke (one side)	7~15mm	90 Deg.
Max grip force (both sides)	220N	90N

**RCP2-GR3**  
ROBO Cylinder RCP2 Series

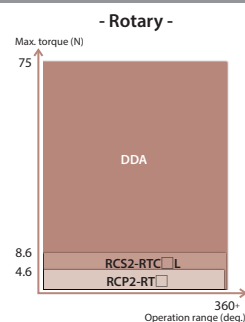
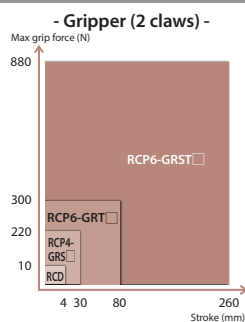
24v Pulse Motor

- 3-claw type is also available

Body width	62/80mm	
Slide	Lever	
Stroke (one side)	5/7mm	19 Deg.
Max grip force (both sides)	102N	51N

**Specifications Overview**

Correlation chart between stroke and max. gripping force/operation range and max. torque



Cartesian Robot



● **Catalog Download**  
intelligentactuator.com/dg23-p25-1



● **Cartesian Robot**  
intelligentactuator.com/dg23-p25-2



Features

Choose from IK series with low-cost RCP6 or ICSB series which combines high rigidity, high precision, and high speed operation of the ISB. (2~6 axes)  
Gantry type, shooter type, and other combination patterns are available for various applications.  
Battery-less absolute encoder is standard, eliminating the need for a home return motion when starting up the machine.

Lineup

**IK2 IK2**  
Series



**24v Pulse Motor** **Low price**

Max. stroke X Axis: 1100 Y Axis: 500mm  
Max. payload 17kg  
Max speed X Axis: 650 Y Axis: 800mm/s

**IK2 IK2**  
Series



**24v Pulse Motor** **Low price**

Max. stroke Y Axis: 1100 Z Axis: 300mm  
Max. payload 8kg  
Max speed Y Axis: 800 Z Axis: 800mm/s

**IK3 IK3**  
Series



**24v Pulse Motor** **Low price**

Max. stroke X Axis: 1100 Y Axis: 500  
Z Axis: 300mm  
Max. payload 6kg  
Max speed X Axis: 300 Y Axis: 640  
Z Axis: 800mm/s

**IK4 IK4**  
Series



**24v Pulse Motor** **Low price**

Max. stroke X Axis: 1100 Y Axis: 400  
Z Axis: 150 R Axis: ±360mm  
Max. payload 5kg  
Max speed X Axis: 300 Y Axis: 280  
Z Axis: 400 R Axis: 1000mm/s

**ICSB2 ICS(P)B2-B**  
Series



**200v AC servo motor** **High thrust** **Long Ruler** **High precision**

Max. stroke X Axis: 4155 Y Axis: 700mm  
Max. payload 90kg  
Max speed X Axis: 2500  
Y Axis: 2400mm/s

**ICSB2 ICS(P)B2-G**  
Series



**200v AC servo motor** **High thrust** **Long Ruler** **High precision**

Max. stroke X Axis: 2500 Y Axis: 1200mm  
Max. payload 60kg  
Max speed X Axis: 1200  
Y Axis: 1200mm/s

**ICSB2 ICS(P)B2-Z**  
Series



**200v AC servo motor** **Long Ruler** **High precision**

Max. stroke X Axis: 2500 Z Axis: 500mm  
Max. payload 20kg  
Max speed X Axis: 2400  
Z-axis: 1200 mm/s

**ICSB2 ICS(P)B2-Y**  
Series



**200v AC servo motor** **High thrust** **High precision**

Max. stroke Y Axis: 1300 Z Axis: 500mm  
Max. payload 40kg  
Max speed Y Axis: 2400  
Z-axis: 1200 mm/s

**ICSB3 ICS(P)B3-B**  
Series



**200v AC servo motor** **Long Ruler** **High precision**

Max. stroke X Axis: 4155 Y Axis: 700  
Z-axis: 500 mm  
Max. payload 36.4kg  
Max speed X Axis: 2500 Y Axis: 2400  
Z-axis: 1200 mm/s

**ICSB3 ICS(P)B3-G**  
Series



**200v AC servo motor** **Long Ruler** **High precision**

Max. stroke X-axis: 2500 Y-axis: 1200  
Z Axis: 600mm  
Max. payload 34.3kg  
Max speed X-axis: 1200 Y-axis: 1200  
Z-axis: 1200 mm/s

**ICSB3 ICS(P)B3-Z3**  
Series



**200v AC servo motor** **High precision**

Max. stroke X Axis: 1270 Y Axis: 500  
Z-axis: 500 mm  
Max. payload 16.5kg  
Max speed X-axis: 1200 Y-axis: 1200  
Z Axis: 600mm/s

**ICSB4 ICS(P)B4-B HZR**  
Series



**200v AC servo motor**

Max. stroke X Axis: 1300 Y Axis: 700  
Z Axis: 200 R Axis: ±360mm  
Max. payload 5kg  
Max speed X-axis: 1200 Y-axis: 1200  
Z Axis: 1256 R Axis: 2200mm/s

**ICSB4 ICS(P)B4-B N1**  
Series



**200v AC servo motor** **High thrust 1kg** **Long Ruler** **High precision**

Max. stroke X Axis: 3835 Y Axis: 700mm  
Max. payload 45kg  
Max speed X Axis: 2500 Y Axis: 1200mm/s

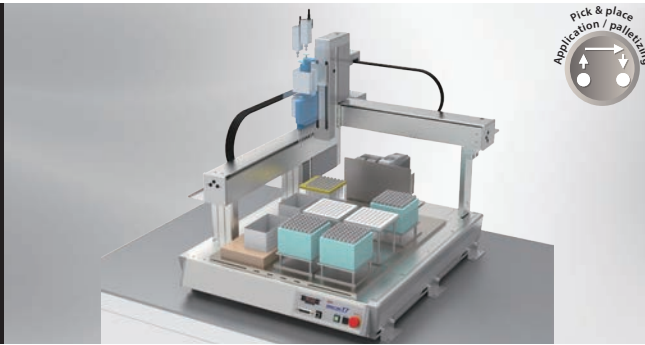
**ICSB6 ICS(P)B6-B N1**  
Series



**200v AC servo motor** **Long Ruler** **High precision**

Max. stroke X Axis: 3835 Y Axis: 700  
Z-axis: 500 mm  
Max. payload 20kg  
Max speed X-axis: 2500 Y-axis: 1200  
Z-axis: 1200 mm/s

Tabletop Robot



● **Catalog Download**  
intelligentactuator.com/dg23-p26-1



● **TTA Product Page**  
intelligentactuator.com/dg23-p26-2



Features

Tabletop all-in-one Cartesian Coordinate Robot with built-in controller and power supply, capable of interpolated control of up to 4 axes.  
Two patterns are available: workpiece moving type and workpiece fixed type.

■ **Simple program**  
Automatic generation of soldering, coating, and screw tightening programs is possible by using the "SEL Program Generator" in the PC software (see p. 36 for details)

■ **Switch Option**  
Up to four additional switches can be added to the full panel for configurable usage.  
No PLC is required, reducing wiring and lowering costs.

**Workpiece gantry type**  
TTA-A Series

Type where workpieces are loaded on the X Axis and moved around.  
The workpiece itself moves.



**Workpiece mount type**  
TTA-C Series

Type where workpieces are loaded on the base.  
The workpiece itself does not move.



Lineup

**TTA Series** **TTA-A2**




24v Pulse Motor

24v AC servo motor

Max. stroke	X Axis: 500 Y Axis: 500mm
Max. payload	X Axis: 30 Y Axis: 20kg
Max speed	X Axis: 1200 Y Axis: 1200mm/s

**TTA Series** **TTA-A3**



24v Pulse Motor

24v AC servo motor

Max. stroke	X Axis: 500 Y Axis: 500 Z Axis: 150mm
Max. payload	X Axis: 30 Z Axis: 15kg
Max speed	X-axis: 1200 Y-axis: 1200 Z-axis: 400 mm/s

**TTA Series** **TTA-A4**



24v Pulse Motor

24v AC servo motor

Max. stroke	X Axis: 500 Y Axis: 500 Z-axis: 150 mm
Max. payload	X Axis: 30 ZR Axis: 15kg
Max speed	X-axis: 1200 Y-axis: 1200 Z-axis: 400 mm/s

**TTA Series** **TTA-C2**



24v Pulse Motor

24v AC servo motor

Max. stroke	X Axis: 500 Y Axis: 450mm
Max. payload	20kg
Max speed	X Axis: 1000 Y Axis: 800mm/s

**TTA Series** **TTA-C3**



24v Pulse Motor

24v AC servo motor

Max. stroke	X Axis: 500 Y Axis: 450 Z Axis: 150mm
Max. payload	15kg
Max speed	X-axis: 1000 Y-axis: 1000 Z-axis: 400 mm/s

**TTA Series** **TTA-C4**

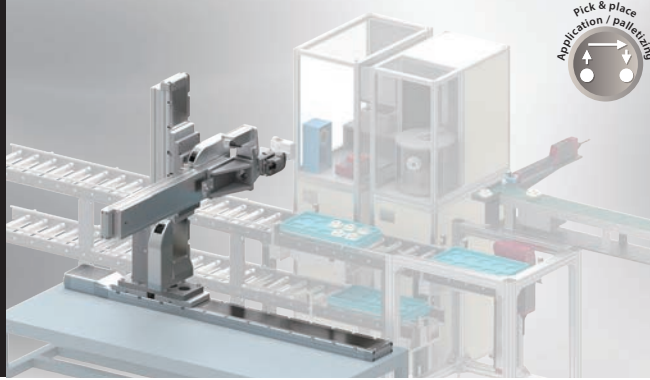


24v Pulse Motor

24v AC servo motor

Max. stroke	X Axis: 500 Y Axis: 450 Z-axis: 150 mm
Max. payload	15kg
Max speed	X-axis: 1000 Y-axis: 1000 Z-axis: 400 mm/s

Cartesian 6-Axis Robot



● **Catalog Download**  
[intelligentactuator.com/dg23-p27-1](http://intelligentactuator.com/dg23-p27-1)



● **Cartesian 6-Axis Robot**  
[intelligentactuator.com/dg23-p27-2](http://intelligentactuator.com/dg23-p27-2)



Features

This 6-DOF robot combines 3 orthogonal axes and 3 rotational axes.

High degree of freedom of movement including rotation and swivel is possible.

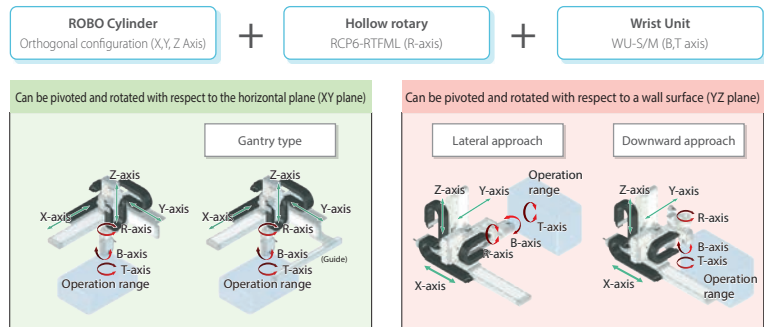
The orthogonal 6-axis robot can perform movements that could only be handled with Vertical multi-joints at a lower cost.

■ Simulation

Using the "Simulator for CRS" in the PC software, operation check, programming, and cycle time check can be performed in advance even without the robot itself.

■ Optimal size

XYZ Axis allows selection of stroke per axis.



Lineup

**CRS** **CRS-XB** □  
 Series

24v Pulse Motor 200v AC servo motor

Max. stroke	X Axis: 1100 Y Axis: 300 Z-axis: 200 mm
Max. payload	2kg
Standard cycle time	1.66 secs.

**CRS** **CRS-XG** □  
 Series

24v Pulse Motor 200v AC servo motor

Max. stroke	X Axis: 1100 Y Axis: 600 Z-axis: 200 mm
Max. payload	2kg
Standard cycle time	1.66 secs.

**CRS** **CRS-XZCY**  
 Series

24v Pulse Motor

Max. stroke	X-axis: 800 Y-axis: 300 Z-axis: 200 mm
Max. payload	1kg
Standard cycle time	2.55 secs.

**CRS** **CRS-XZCZ**  
 Series

24v Pulse Motor

Max. stroke	X-axis: 800 Y-axis: 300 Z-axis: 200 mm
Max. payload	1kg
Standard cycle time	2.55 secs.

**CRS** **CRS-XZ** □ Y  
 Series

24v Pulse Motor 200v AC servo motor

Max. stroke	X-axis: 800 Y-axis: 300 Z-axis: 500 mm
Max. payload	1kg
Standard cycle time	1.69 secs.

**CRS** **CRS-XZ** □ Z  
 Series

24v Pulse Motor 200v AC servo motor

Max. stroke	X-axis: 800 Y-axis: 300 Z-axis: 500 mm
Max. payload	1kg
Standard cycle time	1.69 secs.

SCARA Robot



● **Catalog Download**  
intelligentactuator.com/dg23-p28-1



● **IXA Series Lineup**  
intelligentactuator.com/dg23-p28-2



● **IXP Series**  
intelligentactuator.com/dg23-p28-3



Features

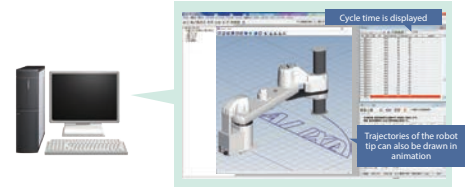
Choose from the low-cost IXP series equipped with a stepper motor and the industry's fastest, high rigidity (double arm construction) IXA series. The IXA series has an interior cable, allowing it to be used in equipment with height restrictions.

■ **IXA simulation**  
Using the "Simulator for IXA" in the PC software, operation check, programming, and cycle time check can be performed in advance even without the robot itself.

■ **Equipped with a Battery-less Absolute Encoder as standard**  
Reduces start-up time by eliminating the need for a home return motion during equipment start-up.

**The industry's fastest IXA**

- Fully enclosed structure**  
The operating part is covered for enhanced dust-proofing.  
*\*Excluding arm length 800 / 1000*
- Patent pending**
- Double arm structure**  
Improved rigidity keeps vibration low. Heat dissipation is improved and continuous cycle time is faster.  
*\*Excluding arm length 180*
- Patent pending**
- Cable built-in**  
With built-in cables, the height dimension can be reduced to allow effective use of space.



Lineup

**IXP Series**

24v Pulse Motor Low price

- Rotational axis / gripper type also available

Arm length	180~650mm
Vertical Axis Stroke	80~200mm
Max. payload	6kg
Standard cycle time	0.57 secs.~

**IXA Series Standard type IXA-□NNN**

200v AC servo motor

- 6 total models

Arm length	180~1000mm
Vertical Axis Stroke	50~400mm
Max. payload	21kg
Standard cycle time	0.26 secs.~

**IXA Series High-speed type IXA-□NSN**

200v AC servo motor High speed

- 5 total models

Arm length	180~1000mm
Vertical Axis Stroke	150~400mm
Max. payload	24kg
Standard cycle time	0.26 secs.~

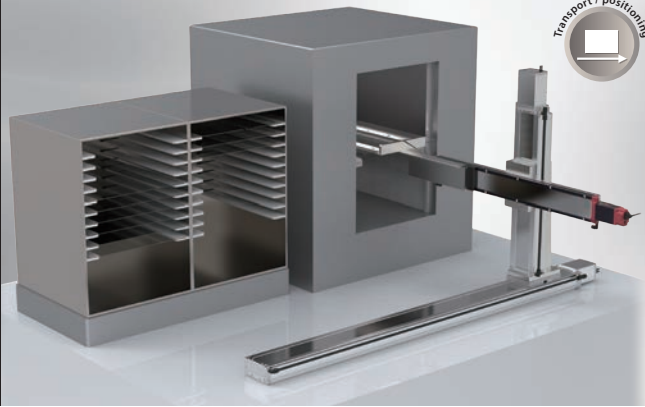
**IXA Series High payload type IXA-□NHN**

200v AC servo motor Long Ruler High thrust

- Longest IAI SCARA robot

Arm length	1000/1200mm
Vertical Axis Stroke	400mm
Max. payload	50kg
Standard cycle time	0.56 secs.~

**ROBO Cylinder  
Single-axis  
robot**



● **Catalog Download**  
intelligentactuator.com/dg23-p29-1



● **Cleanroom Type**  
intelligentactuator.com/dg23-p29-2



● **Dust & Splash-proof Type**  
intelligentactuator.com/dg23-p29-3



**Features**

**- Cleanroom -**

The stainless steel sheet on the top surface, air suction inside the body, and low-dust construction with low-dust grease ensure compliance with ISO Class 2.5 or equivalent. (ISO 14644-1)

**- Dust-proof/splash-proof -**

The IP65 rating ensures that even dusty environments or equipment directly exposed to water will not be affected.

**Lineup**

Cleanroom

Dust-proof/splash-proof

**ROBO Cylinder RCP6CR Series**  
**RCP6CR-SA□□C/ WSA□□C**



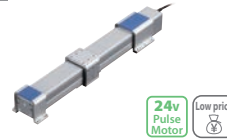
- 8 total sizes
  - ISO Class 2.5 or equivalent (ISO 14644-1 Std.)
- |              |                                  |
|--------------|----------------------------------|
| Body width   | 40~160mm                         |
| Stroke       | 50~1100mm                        |
| Max. payload | Horizontal 100kg / Vertical 55kg |
| Max speed    | 1440mm/s                         |

**ROBO Cylinder RCS4CR Series**  
**RCS4CR-SA□□C/ WSA□□C**



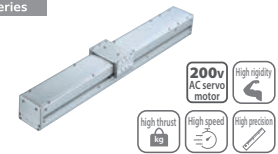
- 8 total sizes
  - ISO Class 2.5 or equivalent (ISO 14644-1 Std.)
- |              |                                  |
|--------------|----------------------------------|
| Body width   | 40~160mm                         |
| Stroke       | 50~1100mm                        |
| Max. payload | Horizontal 100kg / Vertical 50kg |
| Max speed    | 1500mm/s                         |

**ROBO Cylinder RCP4W Series**  
**RCP4W-SA□□C**



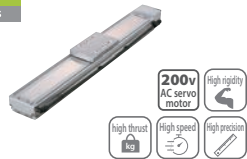
- 3 Total Types
  - IP65
- |              |           |
|--------------|-----------|
| Body width   | 57~79mm   |
| Stroke       | 100~700mm |
| Max. payload | 20kg      |
| Max speed    | 530mm/s   |

**Single Axis Robot ISWA Series**  
**IS(P)WA**



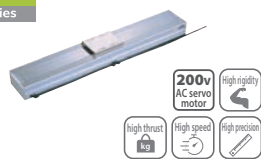
- High rigidity type
  - IP65
- |              |            |
|--------------|------------|
| Body width   | 94~155mm   |
| Stroke       | 100~1200mm |
| Max. payload | 70kg       |
| Max speed    | 1000mm/s   |

**Single Axis Robot ISDBCR Series**  
**IS(P)DBCR**



- Anti-static type is also available
  - ISO Class 2.5 or equivalent (ISO 14644-1 Std.)
- |              |                                  |
|--------------|----------------------------------|
| Body width   | 90~150mm                         |
| Stroke       | 100~2500mm                       |
| Max. payload | Horizontal 120kg / Vertical 40kg |
| Max speed    | 1800mm/s                         |

**Single Axis Robot ISDACR Series**  
**IS(P)DACR-W**



- High thrust type
  - ISO Class 2.5 or equivalent (ISO 14644-1 Std.)
- |              |                                  |
|--------------|----------------------------------|
| Body width   | 198mm                            |
| Stroke       | 100~2500mm                       |
| Max. payload | Horizontal 120kg / Vertical 60kg |
| Max speed    | 2000mm/s                         |

**Single Axis Robot SSPDACR Series**  
**SSPDACR**



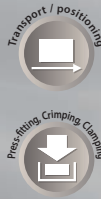
- High thrust type
  - ISO Class 2.5 or equivalent (ISO 14644-1 Std.)
- |              |                                  |
|--------------|----------------------------------|
| Body width   | 100~155mm                        |
| Stroke       | 100~1500mm                       |
| Max. payload | Horizontal 120kg / Vertical 25kg |
| Max speed    | 1600mm/s                         |

**Cleanroom  
DUST/WATER  
PROOF**

Rod type / Radial cylinder

Ideal not only for conveyance but also for pressing and press fitting.

**ROBO Cylinder**



● **Catalog Download**  
intelligentactuator.com/dg23-p30-1



● **Cleanroom Type**  
intelligentactuator.com/dg23-p30-2



● **Dust & Splash-proof Type**  
intelligentactuator.com/dg23-p30-3



**Features**

**- Cleanroom -**

This is a compact rotating nut type actuator. The air suction inside the body meets ISO Class 3.5 or equivalent. (ISO 14644-1)

**- Dust-proof/splash-proof -**

IP52/65 rating by sealing the joint with a gasket and seal.

**Lineup**

Cleanroom



**ROBO Cylinder RCA2CR Series**

24v AC servo motor, Low price, Compact

- Overall shortened length type
- Guide type is also available
- ISO Class 100 (0.1µm, Fed.Std.209D)

Body width	28~35mm
Stroke	25~50mm
Max. payload	Horizontal 6kg / Vertical 1.5kg
Max speed	300mm/s

Dust-proof/splash-proof



**ROBO Cylinders RCP6W Series**

24v Pulse Motor, Low price

- 8 total sizes
- Motor side-mounted type is also selectable
- IP65

Body width	40~160mm
Stroke	50~800mm
Max. payload	Horizontal 100kg / Vertical 70kg
Max speed	630mm/s



**ROBO Cylinder RCP5W Series**

24v Pulse Motor, High rigidity, High thrust

- High thrust type
- IP65

Body width	108mm
Stroke	50~800mm
Max. payload	Horizontal 240kg / Vertical 120kg
Max speed	200mm/s



**ROBO Cylinder RCS2CR Series**

200v AC servo motor, Low price, Compact

- Overall shortened length type
- Guide type is also available
- ISO Class 100 (0.1µm, Fed.Std.209D)

Body width	46/48mm
Stroke	50/75mm
Max. payload	Horizontal 20kg / Vertical 6kg
Max speed	380mm/s



**ROBO Cylinder RCA2W Series**

24v AC servo motor, Low price, Compact

- Overall shortened length type
- Guide type is also available
- IP52

Body width	28~35mm
Stroke	25~50mm
Max. payload	Horizontal 6kg / Vertical 1.5kg
Max speed	300mm/s



**ROBO Cylinder RCS2W Series**

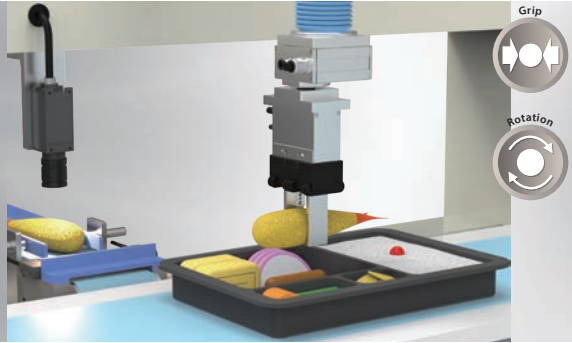
200v AC servo motor, Low price, Compact

- Overall shortened length type
- Guide type is also available
- IP52

Body width	46/48mm
Stroke	50/75mm
Max. payload	Horizontal 20kg / Vertical 6kg
Max speed	380mm/s

Clean / dust-proof splash-proof

**ROBO Cylinder  
Single-axis  
robot**



● **Catalog Download**  
intelligentactuator.com/dg23-p31-1



● **Cleanroom Type**  
intelligentactuator.com/dg23-p31-2



● **Dust & Splash-proof Type**  
intelligentactuator.com/dg23-p31-3



**Features**

**- Cleanroom -**

The air suction inside the body meets ISO Class 2.5 or equivalent. (ISO 14644-1)

**- Dust-proof/splash-proof -**

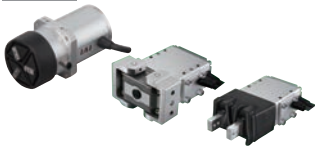
The gripper is equipped with a rubber cover for simple dustproofing, and the rotary is dustproof and drip-proof due to the sealed structure of the body frame.

**Lineup**

Cleanroom

Dust-proof/splash-proof

**ROBO Cylinder RCP2CR Series RCP2CR-GR**



24v Pulse Motor Low price

- Slide, Lever, 3 Claw Type
- 6 total models
- ISO Class 2.5 or equivalent (ISO 14644-1 Std.)

Body width	42~80mm
Stroke (one side)	4~7mm / 90 deg.
Max grip force (both sides)	102N

**ROBO Cylinder RCP2W Series RCP2W-GR**



24v Pulse Motor Low price

- Slide, Lever, 3 Claw Type
- 6 total models
- IP50

Body width	42~80mm
Stroke (one side)	4~7mm / 90 deg.
Max grip force (both sides)	102N

**ROBO Cylinder RCP2CR Series RCP2CR-RT**



24v Pulse Motor Low price

- 6 total models
- ISO Class 10 (0.1µm, Fed.Std.209D)

Body width	45~114mm
Operation range	330/360 deg. (multi-rotation)
Max. torque	~4.6N
Allowable inertia moment	~0.03 kg/m <sup>2</sup>

**Single Axis Robot DDACR Series DDACR**



200v AC servo motor High thrust High precision

- Large diameter direct drive motor
- ISO Class 2.5 or equivalent (ISO 14644-1 Std.)

Body width	180mm
Operation range	360 deg. (multi-rotation)
Max. torque	~75N
Allowable inertia moment	~1.8kg·m <sup>2</sup>

**ROBO Cylinder RCP2W Series RCP2W-RT**



24v Pulse Motor Low price

- 6 total models
- IP54

Body width	45~114mm
Operation range	330/360 deg. (multi-rotation)
Max. torque	~4.6N
Allowable inertia moment	~0.03 kg/m <sup>2</sup>

**Single Axis Robot DDW Series DDW**



200v AC servo motor High thrust High precision

- Large diameter direct drive motor
- IP66M

Body width	195mm
Operation range	360 deg. (multi-rotation)
Max. torque	~67N
Allowable inertia moment	~1.6kg·m <sup>2</sup>



SCARA  
Robot



● **Catalog Download**  
intelligentactor.com/dg23-p32-1



● **SCARA Robot Lineup**  
intelligentactor.com/dg23-p32-2



● **IXP Series**  
intelligentactor.com/dg23-p32-3



Features

Choose from the low-cost IXP series equipped with a stepper motor and the industry's fastest, high rigidity (double arm construction) IXA series. The IXA series has an interior cable, allowing it to be used in equipment with height restrictions.

**- Cleanroom -**

ISO Class 3 or 3.5 compliant, these products are used in assembly and transport equipment in clean environments. (ISO 14644-1)

**- Dust-proof/splash-proof -**

While complying with IP65, the specifications are equivalent to those of standard environmental specifications.

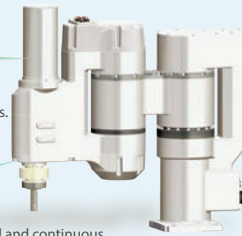
The industry's fastest IXA (dust-proof splash-proof specification)

**Aluminum cover adopted**

No water ingress due to cover deformation even when subjected to direct jets. There is no swelling caused by coolant.

**Double arm structure**

Improved rigidity keeps vibration low. Heat dissipation is improved and continuous cycle time is faster. **\*Excluding arm length 300**



**Cable built-in**

With built-in cables, the height dimension can be reduced to allow effective use of space.

Lineup

Cleanroom

**IXP** IXP-□C□  
Series



- ISO Class 3.5 or equivalent (ISO 14644-1 Std.)

Arm length	350~650mm
Vertical Axis Stroke	150/200mm
Max. payload	6kg
Standard cycle time	0.74 secs.~

Dust-proof/splash-proof

**IXP** IXP-□W□  
Series



- IP65 (Excluding bellows)

Arm length	350~650mm
Vertical Axis Stroke	150/200mm
Max. payload	6kg
Standard cycle time	0.74 secs.~

**IXA** High-speed type  
IXA-4NSC  
Series



- ISO Class 3 (ISO 14644-1 Std.)

Arm length	300~600mm
Vertical Axis Stroke	150~330mm
Max. payload	10kg
Standard cycle time	0.27 secs.~

**IXA** High-speed type  
IXA-4NSW  
Series



- IP65 (Excluding bellows)

Arm length	300~1000mm
Vertical Axis Stroke	150~400mm
Max. payload	21kg
Standard cycle time	0.30 secs.~

**IXA** High payload type  
IXA-4NHW  
Series



- IP65 (Excluding bellows)

Arm length	1200mm
Vertical Axis Stroke	400mm
Max. payload	47kg
Standard cycle time	0.61 secs.~



Controller

● **Catalog Download**  
[intelligentactuator.com/dg23-p33-1](http://intelligentactuator.com/dg23-p33-1)



● **Controller Lineup Page**  
[intelligentactuator.com/dg23-p33-2](http://intelligentactuator.com/dg23-p33-2)



Lineup

**Single-axis control controller**

When only 1 axis is controlled by 1 controller


**Supported control methods** ● I/O ● Pulse-train ● Field network ● Serial communication (Modbus)

**PCON** Series

Compact Low price 24v Pulse Motor

- Equipped with PowerCON (high-output driver), which draws out the maximum capability of the stepper motor
- Equipped with a collision detection function

Max. dimensions (mm): W35×D78.1×H190




**ACON** Series

Compact Low price 24v AC servo motor

- Equipped with an off-board tuning function to set the optimum gain to match the transport load

Max. dimensions (mm): W35×D78.1×H185




**DCON** Series

Compact Low price 24v Brushless DC motor type

- RCD Controller

Max. dimensions (mm): W35×D78.1×H185




**SCON2** Series

Compact Low price 200v AC servo motor

**NEW**

- Convenient functions such as reading actuator information, drive recorder function, safety function, etc.
- Pulse output is available

Dimensions (mm): W40×D143×H160




**SCON** Series

200v AC servo motor

- 200V AC servo motor
- All models equipped with the system can be connected
- Pulse output is available

Max. dimensions (mm): W92.7×D174×H300



**Multi-axis control controller**

When controlling multiple axes with 1 controller

**Supported control method** ● SEL language (IAI exclusive program) ● I/O ● Field Network  
 \*Excluding RCON

**RCON** Series


Compact 24v Pulse Motor 24v AC servo motor

Low price 24v Brushless DC motor type 200v AC servo motor

**Recommended product!**

- Unit connection type
- Different motor types can be controlled by 1 unit
- Up to 16 axes can be connected (some restrictions apply)
- ELECYLINDER can also be connected

Dimensions (mm): D98.8×H115



**RSEL** Series


Compact 24v Pulse Motor 24v AC servo motor

Low price 24v Brushless DC motor type 200v AC servo motor

**Recommended product!**

- Unit connection type
- Different motor types can be controlled by 1 unit
- Up to 16 axes can be connected (some restrictions apply)
- ELECYLINDER can also be connected

Dimensions (mm): D98.8×H115




**MSEL** Series

24v Pulse Motor

- Built-in power supply type (AC100~230V±10%)
- SCARA Robot IXP, Wrist Unit WU can be controlled

Dimensions (mm): W130×D125×H195



**SSEL** Series

200v AC servo motor

- Power supply voltage 100V specification can be selected (depending on the W quantity of connected actuators)
- Capable of 2-axis synchronous control

Max. dimensions (mm): W100×D126×H177~195



**XSEL** Series

200v AC servo motor

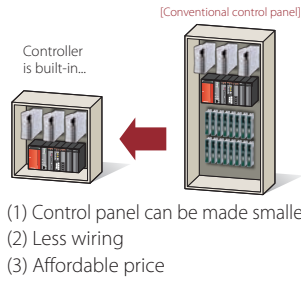
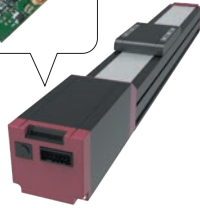
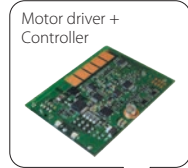
- SCARA Robot IXA can be controlled
- Capable of 2-axis synchronous control

Max. dimensions (mm): W304~372×D125.3×H195



## ELECYLINDER® Controller built-in type

For positioning between 2 points, ELECYLINDER® with built-in controller is recommended.



- ELECYLINDER Exclusive
- Different motor types can be controlled by 1 unit
- Up to 16 axes can be connected (some restrictions apply)

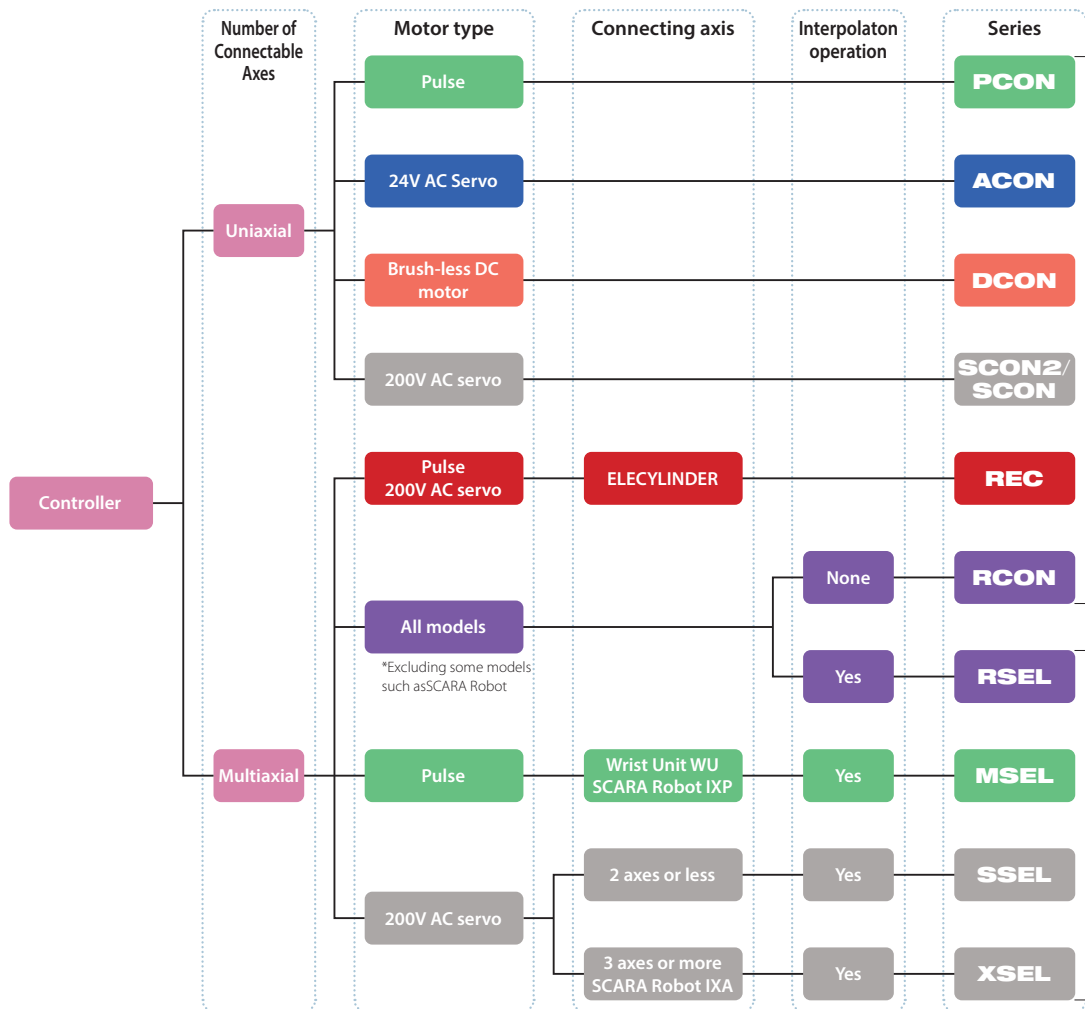


### Supports numerous field networks

Supports numerous field networks.  
Motion control by motion network is also available.



## Selection Flow



### Simple

#### Positioner type

This is a type of controller that registers position and speed information in position data in advance and operates by specifying the registration number (position No.) externally. Position and speed can also be specified directly via a PLC or positioning unit. This controller is low-cost and easy to install.

### PLC Unnecessary

#### Program type

Control is performed by a program using IAI's proprietary language (SEL language). In the case of RSEL, the program can be easily created with a support tool. General-purpose I/O, general-purpose protocol communication, and internal operations using variables are available, so the device can be operated independently without the need for a PLC or other host device.

General Functions

Positioner type with "□CON" in the model name

General Functions

Function	Description
Multi-point positioning	0.01mm (deg)* Set by unit
Speed control	Speed can be set for each position
Acceleration/deceleration control	Acceleration/deceleration can be set for each position
Push	Push start point and current (%), Set push width
Pitch feed	Arbitrary values for equally spaced movement
Jog motion	Operable only while input is ON
Zone output	0.01mm (deg)* Set by unit
Pausing	Stop at any position by putting up a pause signal Command cancellation is also possible by combining a reset signal
Speed changes while moving	Speed can be changed without pausing by updating only the speed while moving

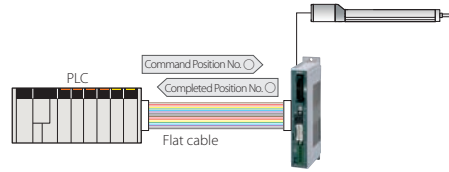
\*0.001 for some models

Other Functions

Function	Description
Overload warning	Set load level with parameters Warning and alarm outputs available
Collision detection <sup>1</sup>	Set current value and judgment time If a collision is detected, Servo OFF immediately
Vibration control <sup>2</sup>	Set vibration frequency with parameters Vibration suppression support available
Power conservation	Automatic servo OFF and auto-current down settings for power saving

<sup>1</sup> Stepper motor specification only  
<sup>2</sup> AC servo motor specification only

PIO control (Ex.) PCON NPN specification



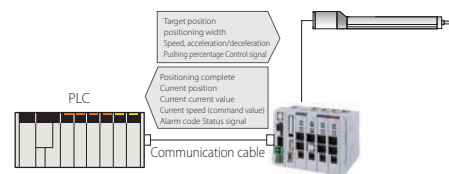
- Max. 512 positioning points
- Pre-registration of operational conditions
- Outputs a completion signal for each position after operation completion
- Zone signals can be set for each position

Teaching software "IA-OS" for PC  
Position edit screen (See P36 for details)



- Step ▶▶▶
- (1) Enter operational conditions in position data
  - (2) Specify the position No. from the top
  - (3) Start signal ON

Field Network Control (Ex.) RCON direct numerical control mode



Direct numerical control is the most common control method

- Step ▶▶▶
- (1) Input numerical values in each data area such as target position, speed, etc.
  - (2) Start signal ON

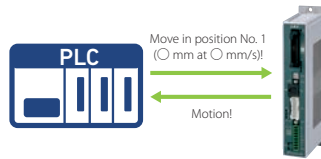
- Unlimited number of positioning points
- Specify numerical values for target position, speed, acceleration/ deceleration, and push current limit
- In addition to the current position, the speed and current value can be monitored

Control Method and Applicable Controllers

Position-specified move using I/O signals



Select the PIO specification. (MSEL equipped as standard)

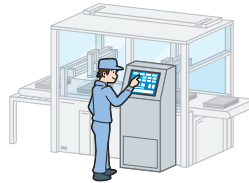


"Move!" to a pre-registered point and send instructions.

Direct numerical control from PLC, etc.



Select the field network specification.



The position and speed of the device can be freely controlled from a touch panel attached to the device.

Interpolation control (Application, palletizing, etc.)



Programming in IAI's proprietary language (SEL language) is required. In the case of RSEL, the SEL program can be easily created with a support tool.

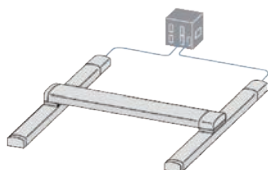


Free movement is possible, including diagonal movement and circular arcs.

Synchronous control



Select an actuator with a limit switch for the connecting actuator.

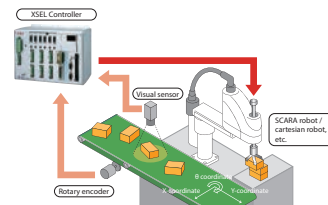


The 2 axes operate at exactly the same timing.

Conveyor tracking



Special specifications will be supported. Please contact your sales representative.

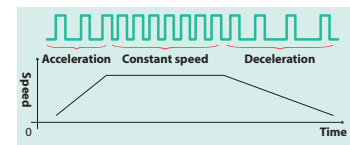


The robot transfers the workpiece in accordance with the conveyor's movement.

Pulse-train control



Select the pulse-train specification.



Position and speed are indicated by the number and speed of pulses.



## Program type with "SEL" in the model name and tabletop robot

In addition to the functions of the positioner type, the program type has the following functions.

### General Functions (+α)

Function	Description
Interpolation control	Linear / circular motion with multiple axes interpolating each other
Synchronous control	Two axes operate simultaneously with automatic compensation
Autostart program	Automatic startup of the set program in READY state after controller power-on.

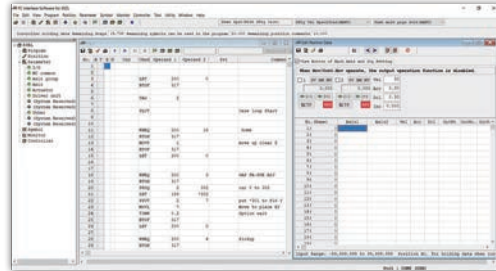
### Other Functions (+α)

Function	Description
Simple interference check zone <sup>*1</sup>	If the tool tip encroaches into arbitrary 3D space, an error output prevents interference
IXA Compliance Control	Function that softly controls the robot in accordance with external forces and assists in fitting of workpieces, etc.
Multi-slider over-approach detection <sup>*2</sup>	Ability to detect multi-slider over-approach by setting a minimum distance with parameters

\*1 SCARA / Cartesian 6-axis  
\*2 NSA/LSA/LSAS

Controlled by IAI's exclusive program (SEL language) and position data.

▼Teaching software "XSEL" for PC  
(See p.36 for details)



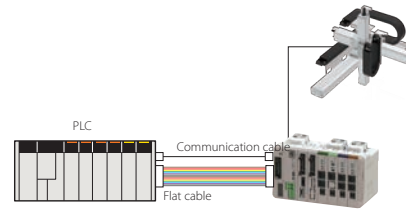
### ■ Stand-alone

(When a host unit such as PLC is not used)



Auto-start program allows device configuration without a PLC.

### ■ Control using PLC



Can support both I/O control and field network control.

What you can do with field network control

- Edit position data from PLC
- Direct numerical specification from PLC
- Coordinate output to PLC

Numerical data can be easily exchanged by programming with variables.

## Air cylinder replacement



Select the PIO specification. Solenoid valve mode is available.

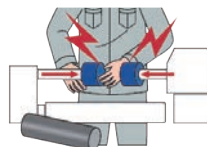


Can be operated with the same wiring and programming as the air cylinder.

## Torque limited while moving



The motor current value can be limited by parameters. (For PCON, ACON, DCON, and SCON, only pulse-train specifications are supported.)

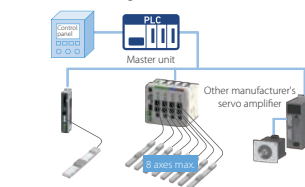


The actuator can be stopped when a person or object interferes during movement.

## Motion Control



Select motion specifications. The system is equipped with a mechanism to match the timing of the motion.

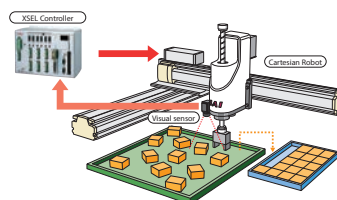


Simultaneous operation and interpolation control are possible by combining IAI products with motors from other manufacturers.

## Vision System



Connection via Ethernet or RS-232C.

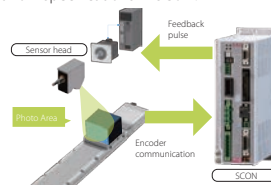


Robot can be moved to the position read by the camera. Please consult your sales representative for details.

## Feedback pulse output



Select the PIO specification. Special specifications are available for field network specifications in SCON.

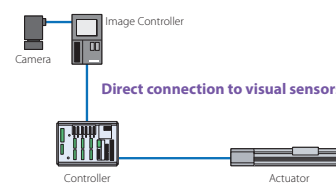


It is possible to feed back to external devices whether the actuator has moved as commanded.

## Serial communication direct control



Any I/O type can be used for any model.



The same protocol can be used to connect to software and hardware from other vendors.

### DC 24V power supply

PSA-24

- IAI exclusive power supply
- Up to 5 units can be connected in parallel

Power supply voltage: AC100V~230V±10%  
Continuous rated output: ~13.8A (330W)  
Max. dimensions (mm): W54xD142.8.1xH131



**Power supply internal data external output**  
The following contents can be monitored by connecting to RCON/RSEL.

Output voltage  
Output current  
Load factor  
Total energized time  
Internal temperature  
Fan speed low warning

\*Graphs are for illustrative purposes only



### Brake Release Box

BKR-01

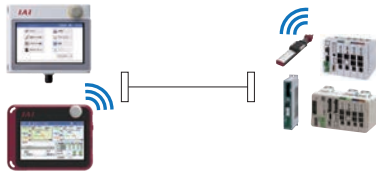
- Actuator brake release without wiring to the controller during equipment start-up.

Dimensions (mm): W76xD35xH135



### Teaching pendant

All types of controller settings can be made with 1 unit



Compatible with all controllers including ELECYLINDER.  
In addition, ELECYLINDER can be connected wirelessly.  
\*All controllers listed in the 2018 and later general catalogs

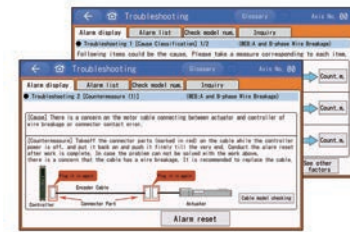
Simple, graphical support functions

Each menu uses icons to make menu selection easier.



Enhanced troubleshooting functions

Just select YES/NO for the alarm status to navigate the troubleshooting methods.



TB-02

- Available for safety category B~4 (TP adapter, dummy plug required separately).
- Simple programmed operation of up to 10 steps is possible.



TB-03

- Wireless connection to ELECYLINDER allows for external positioning, operation settings, and commissioning without the need for a cable connection.



ADTB

- Teaching pendant with power supply unit.
  - Brake release, trial operation, and data setting are all possible prior to wiring since the teaching pendant has its own power supply unit.
- \*ELECYLINDER Exclusive (As of June 2023).



### Digital speed controller (ELECYLINDER exclusive)

Just pick a number and input it.  
Intuitive digital speed controller



Digital Speed Controller Built-in Type

Easy setting Level	Speed (V)	AVD settings	Cycle time
Forward (F)	10	% A V D	Time (S)
Backward (B)	8	F 30 70 20	Forward (F) 0.7
		B 80 100 50	Backward (B) 1.2

Easy setting (10 levels) AVD Settings Cycle time display

#### What digital speed controller can do for you

- General settings (position, acceleration, speed, deceleration) •Current position acquisition •Push-motion operation settings •Trial run •Jog operation
- Brake release •Motor power ON/OFF
- Confirm cycle time •Error indication •Alarm reset

Digital Speed Controller For external / wireless communication

TBD-1 Wired Teaching Controller

#### ELECYLINDER Exclusive Wired Teaching Controller

- By connecting the included cable to the SIO connector, all ELECYLINDERS can be operated regardless of model or installation conditions.



TBD-1WL Wireless Teaching Controller

#### ELECYLINDER Exclusive Wireless Teaching Controller

- Wireless communication allows easy connection to ELECYLINDER installed in hard-to-reach locations.
- Maximum number of simultaneously detected axes: 16.





## Teaching software for PC

There are 2 types of software for setting positions and parameters.

### IA-OS Compatible with position controller (EC and types with "CON" in the model name)

#### Main stored software

- IA-OS
- PC software for RC (for old controllers)
- Gateway Parameter Configuration Tool
- Calculator Software

#### Applicable Controllers

EC, RCON, REC, PCON, ACON, DCON, SCON2, SCON, etc.

DOWNLOAD



### IA-101 Compatible with programmable controllers (mainly types with "SEL" in the model number)

#### Main stored software

- PC Software for XSEL (Including older versions)
- SEL Program Generator
- Simulator for IXA/CRS

#### Applicable Controllers

RSEL, MSEL, SSEL, XSEL, TTA etc.

DOWNLOAD



### IA-OS

This software is used to set the position and parameters of the position controller. In addition to test runs, servo monitoring and troubleshooting are also available.

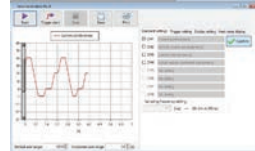
#### ▼Program / Position Editing



#### ▼Troubleshooting



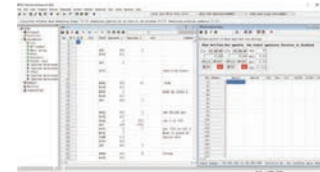
#### ▼Servo Monitor



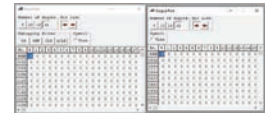
### PC software for XSEL

Software for setting program controller positions, parameters, and programs. In addition to test runs, simulation of input/output signals, servo monitoring, and troubleshooting are also available.

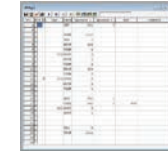
#### ▼Program / Position Editing



#### ▼Input-output port

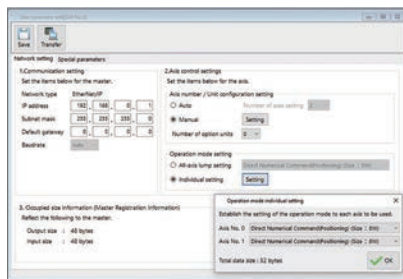


#### ▼SEL Program Support Tool



### Gateway Parameter Configuration Tool

This tool is necessary when configuring the gateway. Assign addresses and configure various communication settings.

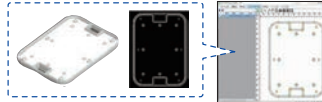


### SEL Program Generator

Software to easily perform soldering, coating, and screw tightening operations using a Tabletop Robot (TTA).

#### ▼Basic operation in only 2 steps

(1) Read the target workpiece into the DXF software



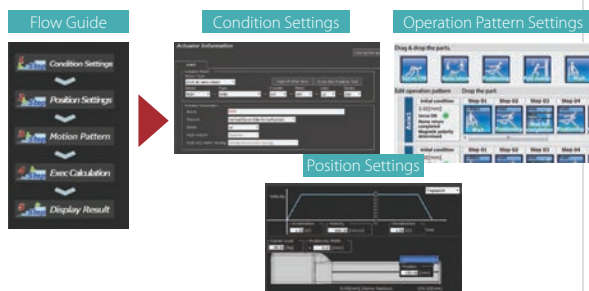
Actual operation verification is possible  
The amount of displacement can be checked on the screen by overlapping the drafting data and the actual locus.

(2) Generate program and position data



### Calculator software

The optimum 24V power supply capacity can be determined for actuator operation. Power consumption and cycle time can also be calculated.



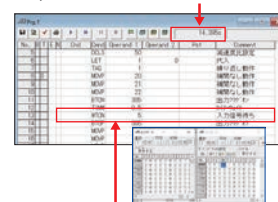
### Simulator for IXA/CRS

This software allows checking the operation of SCARA robot (IXA) and Cartesian 6-axis robot (CRS) using only a PC. Operation can be checked without the need for the body

#### ▼What the simulation software can do

(1) Program operation can be checked.

(2) Cycle time can be confirmed.



(3) Input/output signals from external sources can be simulated.

(4) Operation trajectory can be checked.

The motion trajectory can be observed from various directions: top, bottom, front, back, right side, left side, and isometric view.



(5) Simple interference check zone can be set. Interference between the robot and peripheral devices can be checked.



# Specification List Outline

## ELECYLINDER (2-point positioning)

### Slider

Model	Ultra-compact EC		Standard																High rigidity								Wide																																									
	SL3		S3(□A)(R)				S4(□A)(R)				S6(□A)(R)				S7(□A)(R)				S8(X)(□A)(R)				S6(X)□AH(R)				S7(X)□AH(R)				WS10(□R)																																					
Motor type	Stepper motor (φ20)		Stepper motor (□28)				Stepper motor (□35)				Stepper motor (□42)				Stepper motor (□56)				Stepper motor (□56SP)				Stepper motor (□42)				Stepper motor (□56)				Stepper motor (□35)																																					
Body width (mm)	W:35 × H:26		W: 35 × H: 45				W: 44 × H: 56				W: 63 × H: 63				W: 73 × H: 73				W: 85 × H: 67.5				W: 63 × H: 70				W: 75 × H: 80				W: 100 × H: 46																																					
L Dimension (mm)	Straight		ST+~164		ST+~263		ST+~296		ST+~323		ST+~394		ST+~565.5		ST+~456		ST+~524.5		ST+~439																																																	
	Side-mounted		-		ST+120		ST+138		ST+183		ST+215.5		ST+~356		ST+~316		ST+~341		ST+266.5																																																	
Positioning repeatability (mm)	±0.05		±0.05				±0.05				±0.05				±0.05				±0.05				±0.05				±0.05																																									
Lead (mm)	4		2		6		4		2		16		10		5		2.5		20		12		6		3		24		16		8		4		30		20		10		5		20		12		6		3		24		12		8		4		20		12		6		3			
Max. payload (kg)	Horizontal		1		2		3.5		6		9		7		12		15		18		15		26		32		40		37		46		51		51		23		35		70		80		15		26		32		40		37		46		51		51		4		15		25		44	
	Vertical		0.3		0.7		1.5		2.5		3.5		1.5		2.5		5		6.5		1		2.5		6		12.5		3		8		16		19		2		4		25		55		1		2.5		6		16		3		8		16		25		-		-		4		7	
Max speed (mm/s)	200		100		420		280		140		800		700		350		175		800		700		450		225		860		700		420		175		1200		975		450		225		1440		900		450		225		1230		980		420		210		900		640		400		160			
Max. Push Thrust / Rated thrust (N)	9		16		45		68		136		41		66		132		263		67		112		224		449		139		209		418		836		78		103		235		470		67		112		224		449		139		209		418		836		34		57		114		228			
Stroke (mm)	50~200 (25 mm each)		50~400 (50 mm each)				50~500 (50 mm each)				50~800 (50 mm each)				50~800 (50 mm each)				50~1500 (50 mm each)				50~1500 (50 mm each)				50~1500 (50 mm each)				50~500 (50 mm each)																																					
Encoder Pulse Count (pulse/rev)	32768		800				800				800				800				800				800				800				800																																					

### Radial Cylinder®

Model	Standard																High rigidity																																							
	RR3(□R)				RR4(□R)				RR6(□R)				RR7(□R)				RR8(□R)				RR10(□R)				RR6(X)□AH(R)				RR7(X)□AH(R)																											
Motor type	Stepper motor (□28)				Stepper motor (□35)				Stepper motor (□42)				Stepper motor (□56)				Stepper motor (□60)				Stepper motor (φ86)				Stepper motor (□42)				Stepper motor (□56)																											
Body width (mm)	W:35 × H:38.5				W:44 × H:50				W:63 × H:54				W:73 × H:64				W: 85 × H: 86				W:108 × H:108				W:63 × H:61				W:75 × H:71																											
L Dimension (mm)	Straight		ST+~260		ST+~294		ST+~310.5		ST+~389		ST+~443.5		ST+~472		ST+~409.5		ST+~492.5																																							
	Side-mounted		ST+117		ST+136		ST+170.5		ST+210.5		ST+257.5		ST+271		ST+195		ST+234																																							
Positioning repeatability (mm)	±0.05				±0.05				±0.05				±0.05				±0.05				±0.05				±0.05																															
Lead (mm)	6		4		2		16		10		5		2.5		20		12		6		3		24		16		8		4		10		5		5		2.5		20		12		6		3		24		12		8		4			
Max. payload (kg)	Horizontal		9		14		18		7		16		25		35		6		25		40		60		20		50		60		80		60		100		150		300		6		25		40		60		20		50		60		80	
	Vertical		1.5		2.5		3.5		1.5		2.5		5		6.5		1.5		4		10		12.5		3		8		18		19		35		55		100		150		1.5		4		10		20		3		8		18		28	
Max speed (mm/s)	420		280		140		800		700		350		175		800		700		450		225		860		700		350		175		300		150		100		45		800		700		450		225		860		700		350		175			
Max. Push Thrust (N)	45		68		136		41		66		132		263		67		112		224		449		182		273		547		1094		1000		2000		3000		6000		67		112		224		449		182		273		547		1094			
Stroke (mm)	50~300 (50mm each)				50~300 (50mm each)				65~315 (50mm each)				65~315 (50mm each)				50~700 (50mm each)				50~800 (50mm each)				50~1000 (50mm each)				50~1000 (50mm each)																											
Encoder Pulse Count (pulse/rev)	800				800				800				800				800				800				800				800																											

### Rod

Model	Ultra-compact EC				Standard								Mini																																												
	GDS3		GDB3		R6				R7				RP4		RP5				GS4			GD4			GD5																																
Motor type	Stepper motor (φ20)		Stepper motor (φ20)		Stepper motor (□42)				Stepper motor (□56)				Stepper motor (□28)		Stepper motor (□35)				Stepper motor (□28)			Stepper motor (□28)			Stepper motor (□35)																																
Body width (mm)	W: 42 × H: 24.5		W: 42 × H: 24.5		W:63 × H:65				W:73 × H:74.5				W:34 × H:78		W:45 × H:88.5				W:55 × H:78			W:76 × H:78			W:112 × H:88.5																																
L Dimension (mm)	ST+~112		ST+~112		ST+~291.5				ST+~354				ST+~125		ST+~154				ST+~125			ST+~125			ST+~154																																
Positioning repeatability (mm)	±0.05		±0.05		±0.05				±0.05				±0.05		±0.05				±0.05			±0.05			±0.05																																
Lead (mm)	2		4		2		20		12		6		3		24		16		8		4		6		4		2		16		10		5		2.5		6		4		2		6		4		2		16		10		5		2.5		
Max. payload (kg)	Horizontal		-		1		2		6		25		40		20		50		60		80		2.5		4		8		6.5		16		25		35		2.5		4		8		2.5		4		8		6.5		16		25		35		
	Vertical		0.8		0.4		0.8		1.5		4		10		12.5		3		8		18		19		1		1.5		2.5		1.5		2.5		6.5		6.5		1		1.5		2.5		1		1.5		2.5		1.5		2.5		6.5		6.5
Max speed (mm/s)	100		200		100		800		700		450		225		860		700		350		175		300		200		100		800		600		300		150		300		200		100		300		200		100		800		600		300		150		
Max. Push Thrust (N)	17		10		17		67		112		224		449		182		273		547		1094		30		45		90		46		73		150		310		30		45		90		30		45		90		46		73		150		310		
Stroke (mm)	10~30 (10 mm each)		10~50 (10 mm each)		50~300 (50mm each)				50~300 (50mm each)				30/50		50/100/150				30/50			30/50			50/100/150																																
Encoder Pulse Count (pulse/rev)	32768		32768		800				800				800		800				800			800			800																																



Wide	Belt				Large													
	WS12 (□R)	B6S	B7S	B8S	B8SS	S10(X)				S13(X)				S15(X)			S18(X)	
Stepper motor (□42)	Stepper motor (□42)	Stepper motor (□56)	Stepper motor (□56SP)	200V AC servo motor (200W)	200V AC servo motor (100W)	200V AC servo motor (200W)		200V AC servo motor (400W)		200V AC servo motor (600/750W)								
W: 120 × H: 54	W:63 × H:~205.5	W:73 × H:~254.5	W:89 × H:230.5	W:89 × H:210.5	W:100 × H:87		W:132 × H:96.7		W:156 × H:102.8		W:188 × H:120							
ST+~437	ST+259.5	ST+287.5	ST+318.8	ST+324.3	ST+~545		ST+~665		ST+~730		ST+~868							
ST+273	-	-	-	-	-		-		-		-							
±0.05	±0.08	±0.08	±0.08	±0.04	±0.01		±0.01		±0.01		±0.01							
24 16 8 4	48 or equiv.	48 or equiv.	54 or equiv.	54 or equiv.	30 20 10 5	30 20 10 5	40 20 10	40 20 10	40 20 10	40 20 10	40 20 10	40 20 10	40 20 10	40 20 10	40 20 10	40 20 10	40 20 10	40 20 10
10 20 40 62	11	20	25	15	17 30 65 85	27 40.5 81 90	36 81 108	60 120 400										
- - 8 13.5	-	-	-	-	2 5 11 21	5.4 9 18 30.6	9 18 36	14 29 80										
1000 720 420 210	1500	1600	1800	2000	1500 1000 500 250	1500 1000 500 250	2000 1000 500	2000 1000 500	2000 1000 500	2000 1000 500	2000 1000 500	2000 1000 500	2000 1000 500	2000 1000 500	2000 1000 500	2000 1000 500	2000 1000 500	
- 84 168 337	-	-	-	-	56.6 84.9 169.8 339.7	113.9 170.9 341.8 683.6	169.6 339.1 678.3	255 510 1276										
50~800 (50 mm each)	300~2600 (100 mm each)	300~2600 (100 mm each)	300~2600 (100 mm each)	300~2600 (100 mm each)	100~2000 (50 mm each)		100~2000 (50 mm each)		100~2500 (50 mm each)		100~2800 (50 mm each)							
800	800	800	800	16384	16384		16384		16384		16384							

**Table**

Model	Ultra-compact EC		Mini														
	T3		TC4			TC5				TW4			TW5				
Motor type	Stepper motor (φ20)		Stepper motor (□28)			Stepper motor (□35)				Stepper motor (□28)			Stepper motor (□35)				
Body width (mm)	W:32 × H:25		W: 78 × H: 51			W:88.5 × H:71.5				W: 78 × H: 51			W:88 × H:72.3				
L Dimension (mm)	ST+~108		ST+~143			ST+~176.5				ST+~143			ST+~176.5				
Positioning repeatability (mm)	±0.05		±0.05			±0.05				±0.05			±0.05				
Lead (mm)	4	2	6	4	2	16	10	5	2.5	6	4	2	16	10	5	2.5	
Max. payload (kg)	Horizontal	1	2	2.5	4	8	6.5	12.5	12.5	12.5	2.5	4	8	6.5	16	20	20
	Vertical	0.4	0.8	1	1.5	2.5	1.5	2.5	5	6.5	1	1.5	2.5	1.5	2.5	5	6.5
Max speed (mm/s)	200	100	300	200	100	800	600	300	150	300	200	100	700	525	300	135	
Max. Push Thrust (N)	10	17	30	45	90	46	73	150	310	30	45	90	46	73	150	310	
Stroke (mm)	10~50 (10 mm each)		30/50			50/100/150				30/50			50/100/150				
Encoder Pulse Count (pulse/rev)	32768		800			800				800			800				

Double guide specification					
SRG11			SRG15		
Stepper motor (□35)			Stepper motor (□42)		
W: 112 × H: 109			W: 148 × H: 124		
ST+111			ST+119		
±0.05			±0.05		
10	5	2.5	20	6	3
16	25	35	6	40	60
2.5	5	10	0.5	7	12.5
700	350	175	800	450	225
77	150	308	67	224	449
50~300 (50mm each)			50~300 (50mm each)		
800			800		



The values shown for speed and payload are the maximum for each.  
Please refer to the catalog or each product information page on our website for more information.  
Speed: Longer strokes may cause the maximum speed to decrease due to the critical rotational speed of the ball screw.  
Payload: When the speed / acceleration is increased, the payload will be reduced.

# Specification List Outline

## ELECYLINDER (2-point positioning)

### Gripper

Model	GD88	GRB10	GD813	
Motor type	Stepper motor (□20)	Stepper motor (□28)	Stepper motor (□28)	
Body width (mm)	W:82 × L:84	W:98 × L:92	W:130 × L:92	
Positioning repeatability (mm)	±0.05	±0.05	±0.05	
Lead	Trapezoidal ball screw lead (mm)	1.5	2	
	Pulley Deceleration Ratio	1.5	1.15	1.25
Max grip force (N) (both sides)	28	100	150	360
Allowable vertical load (N)	598	598	898	
Stroke (one side)(mm)	10	15	20	
Encoder Pulse Count (pulse/rev)	800	800	800	

### Rotary

Model	RTC9	RTC12	RTC18
Motor type	Stepper motor (□28)	Stepper motor (□42)	Stepper motor (□56SP)
Body width (mm)	W:90 × L:~155	W:117 × L:~204.5	W:185 × L:213.5
Positioning repeatability (deg)	±0.05	±0.01	±0.02
Deceleration ratio	1/45	1/45	1/40
Max. torque (N·m)	1.5	8	25.2
Max speed (deg/s)	600	600	450
Operation range (deg.)	330	330	330
Allowable inertia moment (kg/m <sup>2</sup> )	0.02	0.13	0.49
Encoder Pulse Count (pulse/rev)	800	800	800

### Cleanroom

Model	Standard												High rigidity																							
	S3(A)CR			S4(A)CR			S6(A)CR			S7(A)CR			S8(X)(A)CR			S6(X)AHCRCR			S7(X)AHCRCR																	
Motor type	Stepper motor (□28)			Stepper motor (□35)			Stepper motor (□42)			Stepper motor (□56)			Stepper motor (□56SP)			Stepper motor (□42)			Stepper motor (□56)																	
Body width (mm)	W: 35 × H: 45			W: 44 × H: 56			W: 63 × H: 63			W: 73 × H: 73			W: 85 × H: 67.5			W: 63 × H: 70			W: 75 × H: 80																	
L Dimension (mm)	ST+~263			ST+~296			ST+~323			ST+~394			ST+~565.5			ST+~456			ST+~524.5																	
Positioning repeatability (mm)	±0.05			±0.05			±0.05			±0.05			±0.05			±0.05			±0.05																	
Cleanliness (ISO 14644-1 standard)	ISO Class 3			ISO Class 3			ISO Class 3			ISO Class 3			ISO Class 3			ISO Class 2.5			ISO Class 2.5																	
Lead	6	4	2	16	10	5	2.5	20	12	6	3	24	16	8	4	30	20	10	5	20	12	6	3	24	12	6	3	24	12	6	3	4	4			
	Max. payload (kg)																																			
Max. payload (kg)	Horizontal			Vertical			Horizontal			Vertical			Horizontal			Vertical			Horizontal			Vertical			Horizontal			Vertical			Horizontal			Vertical		
	3.5	6	9	7	12	15	18	15	26	32	40	37	46	51	51	23	35	70	80	15	26	32	40	37	46	51	51	1	2.5	6	16	3	8	8	16	25
Max speed (mm/s)	420	280	140	800	700	350	175	800	700	450	225	860	700	420	210	1200	975	450	225	1350	900	450	225	1230	980	420	210									
Max. Push Thrust (N)	45	68	136	41	66	132	263	67	112	224	449	139	209	418	836	78	103	235	470	67	112	224	449	139	209	418	836									
Stroke (mm)	50~400 (50 mm each)			50~500 (50mm each)			50~800 (50mm each)			50~800 (50mm each)			50~1100 (50 mm each)			50~1500 (50mm each)			50~1500 (50mm each)																	
Encoder Pulse Count (pulse/rev)	800			800			800			800			800			800			800																	

### Dust-proof/splash-proof

Model	Slider												Rod																			
	S6□D				S6□W				S7□D				S7□W				R6□W				R7□W											
Motor type	Stepper motor (□42)				Stepper motor (□42)				Stepper motor (□56)				Stepper motor (□56)				Stepper motor (□42)				Stepper motor (□56)											
Body width (mm)	W: 63 × H: 70				W:63 × H:77				W:73 × H:80				W:73 × H:87				W:63 × H:64				W: 73 × H: 73											
L Dimension (mm)	ST+~367.5				ST+~367.5				ST+~416.5				ST+~416.5				ST+~312				ST+~361.5											
Positioning repeatability (mm)	±0.05				±0.05				±0.05				±0.05				±0.05				±0.05											
Ingress protection	IP40				IP43/54				IP40				IP43/54				IP67				IP67											
Lead	20	12	6	3	20	12	6	3	24	16	8	4	24	16	8	4	20	12	6	3	24	16	8	4	24	16	8	4	24	16	8	4
	Max. payload (kg)																															
Max. payload (kg)	Horizontal				Vertical				Horizontal				Vertical				Horizontal				Vertical				Horizontal				Vertical			
	15	26	32	40	15	26	32	40	37	46	51	51	37	46	51	51	6	25	40	60	20	50	60	80	1.5	4	10	12.5	3	8	18	19
Max speed (mm/s)	800	700	450	225	800	700	450	225	860	700	420	210	860	700	420	210	800	700	450	225	860	700	350	175								
Max. Push Thrust (N)	67	112	224	449	67	112	224	449	139	209	418	836	139	209	418	836	67	112	224	449	182	273	547	1094								
Stroke (mm)	50~800 (50mm each)				50~800 (50mm each)				50~800 (50mm each)				50~800 (50mm each)				50~300 (50mm each)				50~300 (50mm each)											
Encoder Pulse Count (pulse/rev)	800				800				800				800				800				800											

## Slider Type (Multi-point positioning)

### RCP6 series

Model	Standard												High rigidity												Wide							
	SA4C/SA4R			SA6C/SA6R			SA7C/SA7R			SA8C/SA8R			HSA6C			HSA7C			WSA10C/WSA10R			WSA12C/WSA12R										
Motor type	Stepper motor (□35)			Stepper motor (□42)			Stepper motor (□56)			Stepper motor (□56SP)			Stepper motor (□42)			Stepper motor (□56)			Stepper motor (□35)			Stepper motor (□42)										
Body width (mm)	W: 40 × H: 48			W: 58 × H: 62.5			W: 70 × H: 67.5			W: 85 × H: 67.5			W: 63 × H: 70			W: 75 × H: 80			W: 100 × H: 47			W: 120 × H: 56										
L Dimension (mm)	Straight			Side-mounted			Straight			Side-mounted			Straight			Side-mounted			Straight			Side-mounted										
	ST+~278			ST+~312.5			ST+~392			ST+~221			ST+~337.5			ST+~405.5			ST+~402			ST+~408										
Positioning repeatability (mm)	±0.01 / ±0.005			±0.01 / ±0.005			±0.01 / ±0.005			±0.01 / ±0.005			±0.01 / ±0.005			±0.01 / ±0.005			±0.01 / ±0.005			±0.01 / ±0.005										
Lead (mm)	16	10	5	2.5	20	12	6	3	24	16	8	4	30	20	10	5	20	12	6	3	24	16	8	4	16	10	5	2.5	20	12	6	3
	Max. payload (kg)																															
Max. payload (kg)	Horizontal			Vertical			Horizontal			Vertical			Horizontal			Vertical			Horizontal			Vertical			Horizontal			Vertical				
	7	12	14	18	15	28	32	40	37	46	51	55	28	60	70	80	15	29	50	42	37	48	61	55	4	15	28	40	12	25	40	60
Max speed (mm/s)	1260	785	390	195	1440	900	450	225	1200	980	490	245	1200	1000	500	250	1280	900	450	225	1230	840	420	210	840	610	390	195	800	600	450	225
Max. Push Thrust (N)	48	77	155	310	56	93	185	370	139	209	418	836	159	239	478	956	67	112	224	449	139	209	418	836	48	77	155	310	56	93	185	370
Stroke (mm)	50~500 (50mm each)			50~800 (50mm each)			50~800 (50mm each)			50~1100 (50mm each)			50~800 (50mm each)			50~800 (50mm each)			50~800 (50mm each)			50~500 (50mm each)			50~800 (50mm each)							
Encoder Pulse Count (pulse/rev)	8192			8192			8192			8192			8192			8192			8192			8192			8192							

## Stopper

Model	ST11		ST15
Motor type	Stepper motor (□35)		Stepper motor (□42)
Body width (mm)	W: 112 × H: 109		W: 148 × H: 124
Lead (mm)	5	2.5	3
Max. payload (kg)	1	3	5
Max speed (mm/s)	350	175	200
Stroke (mm)	50		50
Workpiece weight (kg)	~50		~100

Wide							
WS10□CR				WS12□CR			
Stepper motor (□35)				Stepper motor (□42)			
W: 100 × H: 46				W: 120 × H: 54			
ST+~439				ST+~437			
±0.05				±0.05			
ISO Class 3				ISO Class 3			
20	12	6	3	24	16	8	4
4	15	25	40	10	20	40	62
-	-	4	7	-	-	8	13.5
900	640	400	160	900	720	420	210
34	57	114	228	-	84	168	337
50~500 (50mm each)				50~800 (50mm each)			
800				800			

Radial cylinder							
RR6□W				RR7□W			
Stepper motor (□42)				Stepper motor (□56)			
W:63 × H:62				W:73 × H:74			
ST+~338				ST+~396.5			
±0.05				±0.05			
IP67				IP67			
20	12	6	3	24	16	8	4
6	25	40	60	20	50	60	80
1.5	4	10	12.5	3	8	18	19
800	700	450	225	860	700	350	175
67	112	224	449	182	273	547	1094
65~315 (50mm each)				65~315 (50mm each)			
800				800			

Wide							
WSA14C/WSA14R				WSA16C/WSA16R			
Stepper motor (□56)				Stepper motor (□56SP)			
W: 140 × H: 68				W: 160 × H: 75			
ST+~484				ST+~545			
ST+311				ST+365.5			
±0.01 / ±0.005				±0.01 / ±0.005			
24	16	8	4	20	10	5	
25	50	65	80	50	70	100	
-	-	14	26	-	15	50	
700	560	420	210	720	450	195	
139	209	418	836	239	478	956	
50~800 (50mm each)				50~1100 (50mm each)			
8192				8192			

## RCP5 series

Model	Belt driven		
	BA4	BA6	BA7
Motor type	Stepper motor (□35)	Stepper motor (□42)	Stepper motor (□56)
Body width (mm)	W:40 × H~171	W:58 × H~180.5	W:70 × H~226.5
L Dimension (mm)	ST+217	ST+258	ST+278
Positioning repeatability (mm)	±0.08	±0.08	±0.08
Lead (mm)	48mm or equivalent	48mm or equivalent	48mm or equivalent
Max. payload (kg) *Horizontal only	1.5	6	16
Max speed (mm/s)	1200	1500	1600
Stroke (mm)	300~1200 (100 mm each)	300~2200 (100 mm each)	300~2600 (100 mm each)
Encoder Pulse Count (pulse/rev)	800	800	800

## RCP3 series

Model	Mini					
	SA2AC/SA2AR		SA2BC/SA2BR			
Motor type	Stepper motor (□20)		Stepper motor (□20)			
Body width (mm)	W:22 × H:27		W:28 × H:29.5			
L Dimension (mm)	Straight	ST+144.5		ST+144.5		
	Side-mounted	ST+88		ST+90		
Positioning repeatability (mm)	±0.05		±0.05			
Lead (mm)	4	2	1	6	4	2
Max. payload (kg) *Horizontal only	0.25	0.5	1	0.25	0.5	1
Max speed (mm/s)	200	100	50	300	200	100
Stroke (mm)	25~100 (25 mm each)		25~150 (25 mm each)			
Encoder Pulse Count (pulse/rev)	800		800			



The values shown for speed and payload are the maximum for each.  
 Please refer to the catalog or each product information page on our website for more information.  
 Speed: Longer strokes may cause the maximum speed to decrease due to the critical rotational speed of the ball screw.  
 Payload: When the speed / acceleration is increased, the payload will be reduced.

# Specification List Outline

## Slider Type (Multi-point positioning)

### RCS4 series

Model	Standard																High rigidity						Wide																																																			
	SA4C/SA4R				SA6C/SA6R				SA7C/SA7R				SA8C/SA8R				HSA6C		HSA7C		WSA10C/WSA10R																																																					
Motor type	200V AC servo motor (60W)				200V AC servo motor (100W)				200V AC servo motor (200W)				200V AC servo motor (400W)				200V AC servo motor (100W)		200V AC servo motor (200W)		200V AC servo motor (60W)																																																					
Body width (mm)	W: 40 × H: 48				W: 58 × H: 62.5				W: 70 × H: 67.5				W: 85 × H: 67.5				W: 63 × H: 70		W: 75 × H: 81		W: 100 × H: 47																																																					
L Dimension (mm)	ST+~291				ST+~339.5				ST+~388				ST+~433				ST+~366.5		ST+~391.5		ST+~416																																																					
	Side-mounted				ST+146.5				ST+184.5				ST+235				ST+259		-		ST+270																																																					
Positioning repeatability (mm)	±0.01 / ±0.005				±0.01 / ±0.005				±0.01 / ±0.005				±0.01 / ±0.005				±0.01 / ±0.005		±0.01 / ±0.005		±0.01 / ±0.005																																																					
Lead (mm)	16	10	5	2.5	30	20	12	6	3	36	24	16	8	4	48	30	20	10	5	24	16	8	4	30	20	10	5	16	10	5	2.5																																											
Max. payload (kg)	Horizontal				10				14				17				20				11		18		30		45		45		7		30		40		45		50		8		30		60		80		90		18		33		50		90		30		40		60		120		7		16		27		40	
	Vertical				3				5				8				12				3.5		6		11		15		15		4		7		12		20		25		-		12		20		35		45		4		6		15		30		7		12		25		50		-		3		5		10	
Max speed (mm/s)	960	600	300	150	1600	1200	720	360	180	1800	1500	1000	500	240	2200	1800	1200	600	300	1500	1000	500	240	1800	1200	600	300	960	600	300	150																																											
Rated thrust (N)	53	85	170	340	57	85	142	283	566	95	142	214	427	855	141	226	339	678	1357	71	106	212	425	114	171	342	684	53	85	170	340																																											
Stroke (mm)	50~500 (50mm each)				50~800 (50mm each)				50~800 (50mm each)				50~1100 (50mm each)				50~800 (50mm each)		50~1000 (50 mm each)		50~500 (50mm each)																																																					
Encoder Pulse Count (pulse/rev)	16384				16384				16384				16384				16384		16384		16384																																																					

### ISB series

Model	Standard										Intermediate Support				Standard																														
	SXM/SXL-60			SXM/SXL-100			MXM/MXL-100			MXM/MXL-200			MXM/MXL-400		MXMX-200		MXMX-400		LXM/LXL-200																										
Motor type	200V AC servo motor (60W)			200V AC servo motor (100W)			200V AC servo motor (100W)			200V AC servo motor (200W)			200V AC servo motor (400W)		200V AC servo motor (200W)		200V AC servo motor (400W)		200V AC servo motor (200W)																										
Body width (mm)	W: 90 × H: 62			W: 90 × H: 62			W: 120 × H: 80			W: 120 × H: 80			W: 120 × H: 80		W: 120 × H: 80		W: 120 × H: 80		W: 150 × H: 95																										
L Dimension (mm)	ST+~319			ST+~344			ST+~373			ST+~398			ST+~433		ST+~464		ST+~499		ST+~441																										
Positioning repeatability (mm)	±0.01 / ±0.003			±0.01			±0.01 / ±0.003			±0.01 / ±0.003			±0.01		±0.01 / ±0.003		±0.01		±0.01 / ±0.003																										
Lead (mm)	16	8	4	36			30	20	10	5	30	20	10	5	48		30	20	48		40	20	10																						
Max. payload (kg)	Horizontal			13			27			55			10			15		23		45		85		30		45		90		110		20		30		45		20		15		45		90	
	Vertical			3.5			7			14			2			2.5		5		10		20		6		10		20		40		6		-		-		-		4		10		20	
Max speed (mm/s)	960	480	240	2160			1800	1200	600	300	1800	1200	600	300	2500		1800	1200	2200		2400	1200	600																						
Rated thrust (N)	53.1	106.1	212.3	47.2			56.6	84.9	169.7	339.6	113.9	170.9	341.8	683.6	141.3		113.9	170.9	141.3		85.5	170.9	341.8																						
Stroke (mm)	100~900 (50 mm each)			100~1100 (50mm each)			100~1100 (50mm each)			100~1100 (50mm each)			100~1300 (50mm each)		800~2000 (50mm each)		800~2000 (50mm each)		100~1300 (50mm each)																										
Encoder Pulse Count (pulse/rev)	131072			131072			131072			131072			131072		131072		131072		131072																										

### ISDB series

Model	Standard										Intermediate Support				Standard																														
	S-60			S-100			M-100			M-200			M-400		MX-200		MX-400		L-200																										
Motor type	200V AC servo motor (60W)			200V AC servo motor (100W)			200V AC servo motor (100W)			200V AC servo motor (200W)			200V AC servo motor (400W)		200V AC servo motor (200W)		200V AC servo motor (400W)		200V AC servo motor (200W)																										
Body width (mm)	W: 90 × H: 74.5			W: 90 × H: 74.5			W: 120 × H: 94			W: 120 × H: 94			W: 120 × H: 94		W: 120 × H: 94		W: 120 × H: 94		W: 150 × H: 112																										
L Dimension (mm)	ST+~342.5			ST+~374			ST+~380			ST+~405			ST+~440		ST+~501		ST+~536		ST+~456																										
Positioning repeatability (mm)	±0.01 / ±0.003			±0.01			±0.01 / ±0.003			±0.01 / ±0.003			±0.01		±0.01 / ±0.003		±0.01		±0.01 / ±0.003																										
Lead (mm)	16	8	4	36			30	20	10	5	30	20	10	5	48		30	20	48		40	20	10																						
Max. payload (kg)	Horizontal			13			27			55			10			15		23		45		85		30		45		90		110		20		30		45		20		15		45		90	
	Vertical			3			6			14			2			2		4		10		20		6		10		20		40		6		-		-		-		2.5		9		20	
Max speed (mm/s)	960	480	240	2000			1800	1200	600	300	1800	1200	600	300	2200		1800	1200	2200		2200	1800	600																						
Rated thrust (N)	53.1	106.1	212.3	47.2			56.6	84.9	169.8	339.7	113.9	170.9	341.8	638.6	141.3		113.9	170.9	141.3		85.5	170.9	341.8																						
Stroke (mm)	100~800 (50 mm each)			100~800 (50 mm each)			100~1100 (50mm each)			100~1100 (50mm each)			100~1100 (50mm each)		800~1600 (50mm each)		800~1600 (50mm each)		100~1300 (50mm each)																										
Encoder Pulse Count (pulse/rev)	131072			131072			131072			131072			131072		131072		131072		131072																										

### IFA series

Model	SA□□-100	MA□□-200	MA□□-400
Motor type	200V AC servo motor (100W)	200V AC servo motor (200W)	200V AC servo motor (400W)
Body width (mm)	W: 105 × H: 64	W: 134 × H: 82	W: 134 × H: 82
L Dimension (mm)	ST+375.5	ST+449.5	ST+449.5
Positioning repeatability (mm)	±0.04	±0.04	±0.04
Lead (mm)	28 or equiv.	42 or equiv.	42 or equiv.
Max. payload (kg) *Horizontal only	20	25	40
Max speed (mm/s)	2000	3000	3000
Rated thrust (N)	53.5	71.2	142.4
Stroke (mm)	200~2600 (50 mm each)	200~3200 (50 mm each)	200~3200 (50 mm each)
Encoder Pulse Count (pulse/rev)	16384	16384	16384

Wide														
WSA12C/WSA12R					WSA14C/WSA14R					WSA16C/WSA16R				
200V AC servo motor (100W)					200V AC servo motor (200W)					200V AC servo motor (400W)				
W: 120 x H: 56					W: 140 x H: 68					W: 160 x H: 75				
ST+~418					ST+~484.5					ST+~535				
ST+266.5					ST+322					ST+365.5				
±0.01 / ±0.005					±0.01 / ±0.005					±0.01 / ±0.005				
30	20	12	6	3	36	24	16	8	4	30	20	10	5	
5	15	25	45	55	7	20	45	65	80	30	60	80	100	
-	3	8	15	15	-	2.5	8	10	25	12	20	35	50	
1600	1200	720	360	180	1800	1440	960	480	240	1800	1200	600	300	
57	85	142	283	566	95	142	214	427	855	226	339	678	1357	
50~800 (50mm each)					50~800 (50mm each)					50~1100 (50mm each)				
16384					16384					16384				

### SSPA series

Model	SXM				MXM				LXM			
	200V AC servo motor (200W)				200V AC servo motor (400W)				200V AC servo motor (750W)			
Motor type	W:100 x H:70				W:130 x H:80				W:155 x H:90			
Body width (mm)	ST+~333				ST+~393				ST+~477			
L Dimension (mm)	±0.005				±0.005				±0.005			
Positioning repeatability (mm)	30 20 10				40 20 10				50 20 25			
Lead (mm)	30 45 90				45 90 120				60 120 120			
Max. payload (kg)	4 6 12				6 12 25				12 25 25			
Max speed (mm/s)	1800 1200 600				2400 1200 600				2500 1250			
Rated thrust (N)	113.9 170.9 341.8				169.6 339.1 678.3				255 510			
Stroke (mm)	100~1100 (50mm each)				100~1300 (50mm each)				100~1500 (50 mm each)			
Encoder Pulse Count (pulse/rev)	16384				16384				16384			

Standard			Intermediate Support			Standard				Intermediate Support			
LXM/LXL-400			LXMX/LXUWX-200			LXMX/LXUWX-400			WXM-750		WXM-750		
200V AC servo motor (400W)			200V AC servo motor (200W)			200V AC servo motor (400W)			200V AC servo motor (750W)		200V AC servo motor (750W)		
W: 150 x H: 95			W: 150 x H: 95			W: 150 x H: 95			W: 198 x H: 120		W: 198 x H: 120		
ST+~463			ST+~623			ST+~645			ST+460		ST+510		
±0.01 / ±0.003			±0.01 / ±0.003			±0.01 / ±0.003			±0.01 / ±0.005		±0.01 / ±0.005		
40	20	10	20			40	20	50	25	10	10 (High payload)	50	25
40	90	120	45			40	90	80	160	200	100~400	80	160
10	20	40	-			-	-	14	32	65	40~80	14	32
2400	1200	600	1200			2400	1200	2500	1250	600	600	2500	1250
169.6	339.1	678.3	170.9			169.6	339.1	255	510	1021	1021	255	510
100~1300 (50mm each)			1000~2500 (50 mm each)			1000~2500 (50 mm each)			100~1300 (50mm each)		900~3000 (50 mm each)		
131072			131072			131072			131072		131072		

### NSA series

Standard			Intermediate Support					
L-400			LX-200			LX-400		
200V AC servo motor (400W)			200V AC servo motor (200W)			200V AC servo motor (400W)		
W: 150 x H: 112			W: 150 x H: 112			W: 150 x H: 112		
ST+~478			ST+~548			ST+~570		
±0.01 / ±0.003			±0.01 / ±0.003			±0.01 / ±0.003		
40	20	10	40	20	40	20		
40	90	120	15	45	40	90		
8	20	40	-	-	-	-		
1800	1200	600	1800	1200	1800	1200		
169.6	339.1	678.3	85.5	170.9	169.6	339.1		
100~1300 (50mm each)			1000~1600 (50 mm each)			1000~1600 (50 mm each)		
131072			131072			131072		

Model	Standard				Intermediate Support		Standard		Intermediate Support	
	MXMS/MXMM		LXMS/LXMM		LXMXS/LXMM		WXMS/WXMM		WXMXS/WXMM	
Motor type	200V AC servo motor (200W)		200V AC servo motor (400W)		200V AC servo motor (400W)		200V AC servo motor (750W)		200V AC servo motor (750W)	
Body width (mm)	W:125 x H:112		W: 145 x H: 120		W: 145 x H: 120		W: 198 x H: 143		W: 198 x H: 143	
L Dimension (mm)	ST+~559		ST+~646		ST+~746		ST+~725		ST+~825	
Positioning repeatability (mm)	±0.01		±0.01		±0.01		±0.01		±0.01	
Lead (mm)	30	20	40	20	40	20	50	25	50	25
Max. payload (kg)	20	35	40	80	40	80	60	120	60	120
Max speed (mm/s)	1800	1200	2400	1300	2400	1300	2500	1300	2500	1300
Rated thrust (N)	113.9	170.9	169.6	339.1	169.6	339.1	255.3	510.6	255.3	510.6
Stroke (mm)	300~1800 (50 mm each)		300~2250 (50 mm each)		2300~3000 (50 mm each)		300~2300 (50 mm each)		2350~3000 (50 mm each)	
Encoder Pulse Count (pulse/rev)	131072		131072		131072		131072		131072	

### LSA/LSAS series

Model	S6	S8	S10	N10	N15	W21
Motor type	Linear servo motor (100W)		Linear servo motor (100W)		Linear servo motor (200W)	
Body width (mm)	W:60 x H:90		W:80 x H:100		W:100 x H:120	
L Dimension (mm)	ST+~486		ST+~578		ST+~640	
Positioning repeatability (mm)	±0.005		±0.005		±0.005	
Max. payload (kg)	3		7		20	
Max speed (mm/s)	2500		2500		2500	
Max. thrust (N)	60		140		320	
Stroke (mm)	40~1248 (48 mm each)		60~1620 (60 mm each)		60~2070 (90 mm each)	
Encoder Pulse Count	1µm		1µm		1µm	



The values shown for speed and payload are the maximum for each.  
 Please refer to the catalog or each product information page on our website for more information.  
 Speed: Longer strokes may cause the maximum speed to decrease due to the critical rotational speed of the ball screw.  
 Payload: When the speed / acceleration is increased, the payload will be reduced.





# Specification List Outline

## Pulse Press/Servo Press (Multi-point positioning)

### RCP6 series (pulse press)

Model	RRA4R	RRA6R	RRA7R	
Motor type	Stepper motor (□35)	Stepper motor (□42)	Stepper motor (□56)	
Body width (mm)	W:40 × H:71	W:58 × H:85	W:73 × H:100	
L Dimension (mm)	ST+134	ST+176	ST+198.5	
loading repeatability	±1.0% F.S.	±1.0% F.S.	±1.0% F.S.	
Lead (mm)	2.5	1.5	4	2
Max. payload (kg)	Horizontal	10	10	10
	Vertical	3	10	10
Max. push / pull thrust (N)	300	600	1000	2000
Stroke (mm)	110~310 (50 mm each)	115~315 (50 mm each)	120~320 (50 mm each)	
Encoder Pulse Count (pulse/rev)	8192	8192	8192	

### RCS3/RCS2 series (servo press)

Model	RA4R	RA6R
Motor type	200V AC servo motor (30W)	200V AC servo motor (60W)
Body width (mm)	W:40 × H:51	W:58 × H:52
L Dimension (mm)	ST+134	ST+176
loading repeatability	±0.5% F.S.	±0.5% F.S.
Lead (mm)	2.5	1.5
Max. payload (kg)	Horizontal	10
	Vertical	3
Max. Push Force (N)	200	600
Stroke (mm)	110~410 (50 mm each)	115~415 (50 mm each)
Encoder Pulse Count (pulse/rev)	16384	16384

## Gripper (Multi-point positioning)

### RCP6 series

Model	Standard			Long stroke			
	GRT7A	GRT7B		GRST6C/GRST6R		GRST7C/GRST7R	
Motor type	Stepper motor (□28)	Stepper motor (□28)		Stepper motor (□42)		Stepper motor (□56)	
Body width (mm)	W:91 × H:39	W:123 × H:39		W: 58 × H: 62.5		W: 70 × H: 67.5	
Positioning repeatability (mm)	±0.01	±0.01		±0.01		±0.01	
Lead	Ball screw lead (mm)	1.5	2	2	8	2	8
	Pulley Deceleration Ratio	1.5	1.25	2.5	-	-	-
Max grip force (N) (both sides)	120	150	300	110	310	340	880
Allowable vertical load (N)	598	898		1080		1400	
Stroke (one side)	1.5	20/40		90/115		105/130	
Encoder Pulse Count (pulse/rev)	8192	8192		8192		8192	

### GRS series

Model	SEG/SIG	MEG/MIG
Body width (mm)	W:20 × H:26	W:24 × H:32
Positioning repeatability (mm)	±0.1	±0.1
Max grip force (N) (both sides)	10	20
Allowable vertical load (N)	150	240
Stroke (one side)	2	2

### RCD series

Model	GRSNA
Motor type	Brush-less DC motor type (3W)
Body width (mm)	W:15 × H:22
Positioning repeatability (mm)	±0.05
Ball screw lead (mm)	2
Max grip force (N) (both sides)	10
Stroke (one side)	2
Encoder Pulse Count (pulse/rev)	480

## Rotary (Multi-point positioning)

### RCP2 series

Model	RTBS(L)/RTCS(L)		RTB(L)/RTC(L)		RTBB(L)/RTCB(L)	
Motor type	Stepper motor (□20)		Stepper motor (□28)		Stepper motor (□35)	
Body width (mm)	W:~68 × L:72		W:~81 × L:88		W:~114 × L:124	
Positioning repeatability (deg.)	±0.05		±0.01		±0.01	
Deceleration ratio	1/30	1/45	1/20	1/30	1/20	1/30
Max. torque (N·m)	0.24	0.36	1.1	1.7	3	4.6
Max speed (deg./s)	400	266	600	400	600	400
Operation range (deg.)	330/360+		330/360+		330/360+	
Allowable inertia moment (kg/m <sup>2</sup> )	0.0023	0.0035	0.01	0.015	0.02	0.03
Encoder Pulse Count (pulse/rev)	800		800		800	

### RCP6 series

Model	RTFML
Motor type	Stepper motor (□42)
Body width (mm)	W:90 × L:224.5
Positioning repeatability (deg.)	±0.01
Deceleration ratio	1/30
Max. torque (N·m)	5.2
Max speed (deg./s)	800
Operation range (deg.)	±180
Allowable inertia moment (kg/m <sup>2</sup> )	0.08
Encoder Pulse Count (pulse/rev)	8192

## Other Multi-point Positioning Robots

### Stopper

Model	ST	ST4523E
Motor type	Stepper motor (□42)	Stepper motor (□28)
Body width (mm)	W:93 × H:106.5	W:45 × H:45
Max. workpiece weight (kg)	150	25
Max speed (mm/s)	65	75
Stroke (mm)	30	20
Rod	Carbon steel	Carbon steel

### Rotary Chuck

Model	RTCKS□		RTCKM□	
Motor type (rotational axis)	Stepper motor (□28)		Stepper motor (□28)	
Body width (mm)	W:40 × H:79.5		W:48 × H:85.5	
Axis configuration	Rotation	Grip	Rotation	Grip
Max. torque (N) / Max. grip force (N)(both sides)	0.29	10	0.36	20
Operating range (deg.) / grip stroke (one side)	0~360	2	0~360	2
Encoder Pulse Count (pulse/rev)	8192	-	8192	-



RA7R	RA8R	RA10R	RA13R		RA15R	RA20R
200V AC servo motor (100W)	200V AC servo motor (200W)	200V AC servo motor (400W)	200V AC servo motor (750W)		200V AC servo motor (3300W)	200V AC servo motor (3000W)
W:73 × H:66	W:88 × H:86	W: 108 × H: 106	W:122 × H:128		W:150 × H:146.5	W:200 × H:399
ST+198.5	ST+260.5	ST+317.5	ST+439.5		ST+434	ST+514.5
±0.5% F.S.	±0.5% F.S.	±0.5% F.S.	±0.5% F.S.		±0.5% F.S.	±0.5% F.S.
2	2.5	2.5	2.5	1.25	3.6	4
10	10	50	100	200	15	15
10	10	50	100	200	220	220
1200	2000	6000	9800	19600	30000	50000
120~520 (50 mm each)	100~500 (50mm each)	100~500 (50mm each)	100~200 (50 mm each)		100~500 (100 mm each)	100~500 (100 mm each)
16384	16384	16384	16384		16384	16384

### RCP4 series

Model	Slide type			Lever type		
	GRSML	GRSLL	GRSWL	GRLM	GRLL	GRLW
Motor type	Stepper motor (□28)	Stepper motor (□35)	Stepper motor (□42)	Stepper motor (□28)	Stepper motor (□35)	Stepper motor (□42)
Body width (mm)	W:34 × H:62	W:42 × H:88	W:50 × H:107	W:45 × H:54	W:52 × H:70	W:60 × H:80
Positioning repeatability (mm/deg)	±0.01	±0.01	±0.01	±0.05	±0.05	±0.05
Lead	Trapezoidal ball screw lead (mm)	1.88 or equiv.	2.52 or equiv.	3.14 or equiv.	-	-
	Pulley Deceleration Ratio	1/30	1/30	1/28	1/30	1/30
Max grip force (N) (both sides)	87	140	220	35	60	90
Allowable vertical load (N)	356	558	651	49	73.5	127
Stroke (one side)	7	11	15	90	90	90
Encoder Pulse Count (pulse/rev)	800	800	800	800	800	800

### RCP2 series

Model	Slide type		Lever type	
	GR3SS	GR3SM	GR3LS	GR3LM
Motor type	Stepper motor (□28)	Stepper motor (□42)	Stepper motor (□28)	Stepper motor (□42)
Body width (mm)	W: 62 × H: 62	W: 80 × H: 80	W: 62 × H: 62	W: 80 × H: 80
Positioning repeatability (mm)	±0.01	±0.01	±0.01	±0.01
Lead	Trapezoidal ball screw lead (mm)	2.5 or equiv.	3.0 or equiv.	-
	Pulley Deceleration Ratio	1/30	1/30	1/30
Max grip force (N) (both sides)	22	102	18	51
Stroke (one side)	5	7	19	19
Encoder Pulse Count (pulse/rev)	800	800	800	800

### RCS2 series

Model	RTC8(H)L		RTC10L		RTC12L	
	200V AC servo motor (12W)	200V AC servo motor (20W)	200V AC servo motor (60W)		200V AC servo motor (150W)	
Body width (mm)	W:135 × H:77	W:150 × H:77	W:171 × H:86		W:233 × H:92	
Positioning repeatability (deg.)	±0.005 deg.		±0.005 deg.		±0.005 deg.	
Deceleration ratio	1/24	1/15	1/24	1/15	1/24	1/30
Max. torque (N·m)	0.55	0.53	0.85	1.7	2.8	8.6
Max speed (deg./s)	750	1200	750	1200	750	600
Operation range (deg.)	360+		360+		360+	
Allowable inertia moment (kg/m <sup>2</sup> )	0.011	0.01	0.017	0.033	0.054	0.1
Encoder Pulse Count (pulse/rev)	16384		16384		16384	

### DDA series

Model	LT18C□A	LH18C□A
	Motor type	200V AC servo motor (200W)
Body width (mm)	W: 180 × H: 70	W: 180 × H: 122.8
Positioning repeatability (sec)	~ ±3.7	~ ±3.7
Rated torque (N·m)	8.4	25
Maximum instantaneous torque (N·m)	25.2	75
Max speed (deg./s)	1800	1440
Operation range (deg.)	360+	360+
Allowable inertia moment (kg/m <sup>2</sup> )	0.6	1.8
Encoder Pulse Count (pulse/rev)	~1,048,576	~1,048,576

### Wrist Unit

Model	S		M	
	Motor type	Stepper motor (□28)		Stepper motor (□35)
Body width (mm)	W:118 × L:148		W:118 × L:195	
Axis configuration	B-axis (Oscillation)	T-axis (rotation)	B-axis (Oscillation)	T-axis (rotation)
Positioning repeatability (mm)	±0.015	±0.15	±0.015	±0.15
Max. payload (kg)	1		2	
Max speed (deg./s)	750	1200	900	1200
Operation range (deg.)	±100	±360	±105	±360
Allowable dynamic thrust load (N)	330		450	
Encoder Pulse Count (pulse/rev)	8192		8192	



The values shown for speed and payload are the maximum for each.  
Please refer to the catalog or each product information page on our website for more information.  
Speed: Longer strokes may cause the maximum speed to decrease due to the critical rotational speed of the ball screw.  
Payload: When the speed / acceleration is increased, the payload will be reduced.

# Specification List Outline

## Cartesian Robot

### 2-axis configuration

Combined Image	Axis configuration	Max. stroke (mm)			Max. payload (kg)	Max speed (mm/s)			Model	
		X-axis	Y-axis	Z-axis		X-axis	Y-axis	Z-axis	Series	Type
XY Y-axis Base Mount	RCP6 (Stepper motor)	1100	500	-	17	650	800	-	IK2	P6XB□
	ISB (servo motor)	3000	700	-	90	2500	2400	-	ICS(P)B2	B□
	NSA + ISB (servo motor)	3000	700	-	45	2400	1200	-		B□N□
	LSA + ISPA (servo motor)	4155	400	-	21.2	2500	1200	-	ICSPA2	B1L□H
XY Y-axis Slider Mount	ISB (servo motor)	800	600	-	31.7	2400	2400	-	ICS(P)B2	S□
XY Y-axis Horizontal Gantry	ISB (servo motor)	2500	1200	-	45	1200	1200	-		G□J□H
XY Y-axis Side-mounted Gantry	ISB (servo motor)	2500	1100	-	60	1200	1200	-		G□
XZ Z-axis Upright Mount	ISB (servo motor)	2500	-	500	20	2400	-	1200		Z□
YZ Z-axis Base Mount	RCP6 (Stepper motor)	-	1100	300	8	-	800	800	IK2	P6YB□
	ISB (servo motor)	-	1300	500	40	-	2400	1200	ICS(P)B2	YB□
YZ Z-axis Slider Mount	ISB (servo motor)	-	700	500	28.8	-	1200	600		YB□

### 4-axis configuration

Configuration		Max. stroke (mm)			Max. stroke (deg)	Max. payload (kg)	Max speed (mm/s)				Max speed (deg/s)	Model	
Configuration	Axis configuration	X-axis	Y-axis	Z-axis	R-axis		X-axis	Y-axis	Z-axis	R-axis	Series	Type	
XYB+ZR (Vertical/Rotation)	RCP6+ZR (Stepper motor)	1100	400	150	±360	5	300	280	400	1000	IK4	P6BB□	
	ISB+ZR (Servo motor)	1300	700	200	±360	2	1200	1200	1256	2200	ICS(P)B4	B□□HZR□	
XY X-axis Multi-Slider	ISB (servo motor)	2250	700	-	-	45	2400	1200	-	-		B3N1□	
	ISB (servo motor)	2700	700	-	-	45	2400	1200	-	-	B4N1□		
	LSA + ISPA (servo motor)	3835	400	-	-	21.2	2500	1200	-	-	ICSPA4	B2L1H	

## Tabletop Robot

### TTA series

Model	Workpiece gantry type						Workpiece mount type					
	24VAC Servo Motor			Stepper motor			24VAC Servo Motor			Stepper motor		
	A2S	A3S	A4S	A2	A3	A4	C2S	C3S	C4S	C2	C3	C4
Max. stroke (mm)	X-axis: 500 Y-axis: 500	X-axis: 500 Y-axis: 500 Z-axis: 150	X-axis: 500 Y-axis: 500 Z-axis: 150	X-axis: 500 Y-axis: 500	X-axis: 500 Y-axis: 500 Z-axis: 150	X-axis: 500 Y-axis: 500 Z-axis: 150	X-axis: 500 Y-axis: 450	X-axis: 500 Y-axis: 450 Z-axis: 150	X-axis: 500 Y-axis: 450 Z-axis: 150	X-axis: 500 Y-axis: 450	X-axis: 500 Y-axis: 450 Z-axis: 150	X-axis: 500 Y-axis: 450 Z-axis: 150
Positioning repeatability (mm)	±0.005	±0.005	±0.005	±0.01	±0.01	±0.01	±0.005	±0.005	±0.005	±0.01	±0.01	±0.01
Max. payload (kg)	X-axis: 30 Y-axis: 20	X-axis: 30 Z-axis: 15	X-axis: 30 ZR-axis: 15	X-axis: 20 Y-axis: 10	X-axis: 20 Z-axis: 6	X-axis: 20 ZR-axis: 6	Y-axis: 20	Z-axis: 15	ZR-axis: 15	Y-axis: 10	Z-axis: 6	ZR-axis: 6
Max speed (mm/s)	X-axis: 1200 Y-axis: 1200	X-axis: 1200 Y-axis: 1200 Z-axis: 400	X-axis: 1200 Y-axis: 1200 Z-axis: 400	X-axis: 800 Y-axis: 800	X-axis: 800 Y-axis: 800 Z-axis: 400	X-axis: 800 Y-axis: 800 Z-axis: 400	X-axis: 1000 Y-axis: 600	X-axis: 1000 Y-axis: 1000 Z-axis: 400	X-axis: 1000 Y-axis: 1000 Z-axis: 400	X-axis: 800 Y-axis: 800	X-axis: 800 Y-axis: 800 Z-axis: 400	X-axis: 800 Y-axis: 800 Z-axis: 400

## SCARA robot

### IXP series

Model	□N1808	□N2508	□N35□□	□N45□□	□N55□□	□N65□□
Arm length (mm)	180	250	350	450	550	650
Vertical Axis Stroke (mm)	80	80	150	150	200	200
Max. payload (kg)	3	0.5	3	3	6	6
Standard cycle time (s)	0.57	0.79	0.69	0.67	0.73	0.81
Composite max speed (mm/s)	2053	2151	2726	2438	2943	2916

### IXA series

Model	□NNN1805	□NN3015
Arm length (mm)	180	300
Vertical Axis Stroke (mm)	50	150
Max. payload (kg)	1	8
Standard cycle time (s)	0.26	0.26
Composite max speed (mm/s)	2638	6032

### 3-axis configuration

Combined Image	Axis configuration	Max. stroke (mm)			Max. payload (kg)	Max speed (mm/s)			Model	
		X-axis	Y-axis	Z-axis		X-axis	Y-axis	Z-axis	Series	Type
XYZ Z-axis Base Mount	RCP6 (Stepper motor)	1100	500	300	6	420	640	800	IK3	P6BB□
	ISB (servo motor)	3000	700	500	36.4	2500	2400	1200	ICS(P)B3	B□
	NSA + ISB (servo motor)	3000	700	500	20	2400	1200	1200		B□N□
	LSA + ISPA (servo motor)	4155	400	400	11.2	2500	1200	1200	ICSPA3	B1L□H
XYZ Z-axis Slider Mount	ISB (servo motor)	3000	700	500	32	2500	2400	1200	ICS(P)B3	B□
	NSA + ISB (servo motor)	3000	700	500	14.3	2400	1200	600		B□N□
	LSA + ISPA (servo motor)	4155	400	300	11.5	2500	1200	600		B1L□H
XYZ Y-axis Horizontal Gantry Z-axis Base Mount	ISB (servo motor)	2500	1200	600	20	1200	1200	1200		G□J□HB
XYZ Y-axis Horizontal Gantry Z-axis Slider Mount	ISB (servo motor)	2500	1200	500	14.8	1200	1200	600		G□J□HS
XYZ Y-axis Side Gantry Z-axis Base Mount	ISB (servo motor)	2500	900	500	31.8	1200	1200	1200		G□HB□
XYZ Y-axis Side Gantry Z-axis Slider Mount	ISB (servo motor)	2500	900	400	34.3	1200	1200	600		G□S□
XZY Z-axis Upright Mount Y-axis Slider Mount	ISB (servo motor)	1270	500	500	16.5	1200	1200	600		Z3□

### 6-axis configuration

Combined Image	Axis configuration	Max. stroke (mm)			Max. payload (kg)	Max speed (mm/s)			Model	
		X-axis	Y-axis	Z-axis		X-axis	Y-axis	Z-axis	Series	Type
XYZ X-axis Multi-Slider Z-axis Base Mount	NSA + ISB (servo motor)	2250	700	500	20	2400	1200	1200	ICS(P)B6	B3N1□B□
		2700	700	500	20	2400	1200	1200		B4N1□B□
	LSA + ISPA (servo motor)	3835	400	400	11.2	2500	1200	1200	ICSPA6	B2L1HB3□
XYZ X-axis Multi-Slider Z-axis Slider Mount	NSA + ISB (servo motor)	2250	700	500	14.3	2400	1200	600	ICS(P)B6	B3N1□S□
		2700	700	500	14.3	2400	1200	600		B4N1□S□
	LSA + ISPA (servo motor)	3835	400	300	11.5	2500	1200	600	ICSPA6	B2L1HS3M

## Cartesian 6-axis robot

### CRS series

Model	XBA	XBB	XGA	XGB	XZCY/XZCZ	XZDY/XZDZ	XZEY/XZ EZ
Max. movable range (mm)	X-axis: 800 Y-axis: 300 Z-axis: 190	X-axis: 1100 Y-axis: 300 Z-axis: 200	X-axis: 800 Y-axis: 600 Z-axis: 190	X-axis: 1100 Y-axis: 600 Z-axis: 200	X-axis: 800 Z-axis: 300 Y Axis: 200	X-axis: 800 Z-axis: 300 Y-axis: 500	X-axis: 800 Z-axis: 300 Y-axis: 500
Max. payload (kg)	1	2	1	2	1	1	1
Standard cycle time (s)	2.07	1.66	2.11	1.66	2.55	2.28	1.69
Repeatability (mm)	±0.03	±0.03	±0.03	±0.04	±0.06	±0.03	±0.03

□N□N45□□	□N□N60□□	□N□N80□□	□N□N100□□	4NHN10040	4NHN12040
450	600	800	1000	1000	1200
180/330	180/330	200/400	200/400	400	400
10	12	24	24	50	50
0.26	0.26	0.29	0.32	0.56	0.61
8282	6414	9215	8936	7540	8308



The values shown for speed and payload are the maximum for each. Please refer to the catalog or each product information page on our website for more information.  
 Speed: Longer strokes may cause the maximum speed to decrease due to the critical rotational speed of the ball screw.  
 Payload: When the speed / acceleration is increased, the payload will be reduced.

# Specification List Outline

## Slider Type (Cleanroom type)

### RCP6CR series

Model	Standard								Wide																							
	SA4C		SA6C		SA7C		SA8C		WSA10C		WSA12C		WSA14C		WSA16C																	
Motor type	Stepper motor (□35)		Stepper motor (□42)		Stepper motor (□56)		Stepper motor (□56SP)		Stepper motor (□35)		Stepper motor (□42)		Stepper motor (□56)		Stepper motor (□56SP)																	
Body width (mm)	W: 40 × H: 48		W: 58 × H: 62.5		W: 70 × H: 67.5		W: 85 × H: 67.5		W: 100 × H: 47		W: 120 × H: 56		W: 140 × H: 68		W: 160 × H: 75																	
L Dimension (mm)	ST+~278		ST+~312.5		ST+~392		ST+~421		ST+~402.4		ST+~408		ST+~484		ST+~545																	
Cleanliness (ISO 14644-1 standard)	Class 2.5 or equivalent		Class 2.5 or equivalent		Class 2.5 or equivalent		Class 2.5 or equivalent		Class 2.5 or equivalent		Class 2.5 or equivalent		Class 2.5 or equivalent		Class 2.5 or equivalent																	
Positioning repeatability (mm)	±0.01 / ±0.005		±0.01 / ±0.005		±0.01 / ±0.005		±0.01 / ±0.005		±0.01 / ±0.005		±0.01 / ±0.005		±0.01 / ±0.005		±0.01 / ±0.005																	
Lead (mm)	16	10	5	2.5	20	12	6	3	24	16	8	4	30	20	10	5	16	10	5	2.5	20	12	6	3	24	16	8	4	20	10	5	
Max. payload (kg)	Horizontal	7	12	14	18	15	28	32	40	37	46	51	55	28	60	70	80	4	15	28	40	12	25	40	60	25	50	65	80	50	70	100
	Vertical	1.5	3	5.5	12	1	2.5	6	16	3	8	16	25	3	4	25	55	-	-	3	10	-	-	9	18	-	-	14	26	-	-	15
Max speed (mm/s)	1260	785	390	195	1440	900	450	225	1200	980	490	245	1200	1000	500	250	840	610	390	195	800	600	450	225	700	560	420	210	720	450	195	
Max. Push Thrust (N)	48	77	155	310	56	93	185	370	139	209	418	836	159	239	478	956	48	77	155	310	56	93	185	370	139	209	418	836	239	478	956	
Stroke (mm)	50~500 (50mm each)		50~800 (50mm each)		50~800 (50mm each)		50~1100 (50mm each)		50~500 (50mm each)		50~800 (50mm each)		50~800 (50mm each)		50~1100 (50mm each)																	
Encoder Pulse Count (pulse/rev)	8192		8192		8192		8192		8192		8192		8192		8192																	

### ISDBCR series

Model	Standard				Intermediate Support		Standard				Intermediate Support													
	S-60		M-100		M-200		MX-200		L-200		L-400		LX-200		LX-400									
Motor type	200V AC servo motor (60W)		200V AC servo motor (100W)		200V AC servo motor (200W)		200V AC servo motor (200W)		200V AC servo motor (200W)		200V AC servo motor (400W)		200V AC servo motor (200W)		200V AC servo motor (400W)									
Body width (mm)	W: 90 × H: 74.5		W: 120 × H: 94		W: 120 × H: 94		W: 120 × H: 94		W: 150 × H: 112		W: 150 × H: 112		W: 150 × H: 112		W: 150 × H: 112									
L Dimension (mm)	ST+~342.5		ST+~380		ST+~405		ST+~501		ST+~456		ST+~478		ST+~548		ST+~570									
Cleanliness (ISO 14644-1 standard)	Class 2.5 or equivalent		Class 2.5 or equivalent		Class 2.5 or equivalent		Class 2.5 or equivalent		Class 2.5 or equivalent		Class 2.5 or equivalent		Class 2.5 or equivalent		Class 2.5 or equivalent									
Positioning repeatability (mm)	±0.01 / ±0.003		±0.01 / ±0.003		±0.01 / ±0.003		±0.01 / ±0.003		±0.01 / ±0.003		±0.01 / ±0.003		±0.01 / ±0.003		±0.01 / ±0.003									
Lead (mm)	16	8	4	30	20	10	5	30	20	10	5	40	20	10	40	20	10	40	20	10	40	20	10	
Max. payload (kg)	Horizontal	13	27	55	15	23	45	85	30	45	90	110	30	45	15	45	90	40	90	120	15	45	40	90
	Vertical	3	6	14	2	4	10	20	6	10	20	40	-	-	2.5	9	20	8	20	40	-	-	-	-
Max speed (mm/s)	960	480	240	1800	1200	600	300	1800	1200	600	300	1800	1200	600	1800	1200	600	1800	1200	600	1800	1200	600	
Rated thrust (N)	53.1	106.1	212.3	56.6	84.9	169.8	339.7	113.9	170.9	341.8	683.6	113.9	170.9	85.5	170.9	341.8	169.6	339.1	678.3	85.5	170.9	169.6	339.1	
Stroke (mm)	100~800 (50 mm each)		100~1100 (50mm each)		100~1100 (50mm each)		100~2000 (50 mm each)		100~1300 (50mm each)		800~2000 (50 mm each)		1000~2500 (50 mm each)		1000~2500 (50 mm each)									
Encoder Pulse Count (pulse/rev)	131072		131072		131072		131072		131072		131072		131072		131072									

## Rod Type (Cleanroom type)

### RCA2CR series

Model	RN3NB/ RP3NB		RN4NB/ RP4NB		GS3NB/ GD3NB		GS4NB/ GD4NB		SD3NB		SD4NB					
Motor type	24V AC servo motor (10W)		24V AC servo motor (20W)		24V AC servo motor (10W)		24V AC servo motor (20W)		24V AC servo motor (10W)		24V AC servo motor (20W)					
Body width (mm)	W: 28 × H: 28		W: 34 × H: 34		W: 28 × H: ~54		W: 34 × H: ~66		W: 29 × H: 60		W: 35 × H: 72					
L Dimension (mm)	73.5/93.5		80/100		78.5/98.5		85/105		133/164		144.5/175.5					
Cleanliness (0.1µm, Fed.Std. 209D)	Class 100		Class 100		Class 100		Class 100		Class 100		Class 100					
Positioning repeatability (mm)	±0.02		±0.02		±0.02		±0.02		±0.02		±0.02					
Lead (mm)	4	2	1	6	4	2	1	6	4	2	4	2	1	6	4	2
Max. payload (kg)	Horizontal	0.75	1.5	3	2	3	6	0.75	1.5	3	2	3	6			
	Vertical	0.25	0.5	1	0.5	0.75	1.5	0.25	0.5	1	0.5	0.75	1.5			
Max speed (mm/s)	200	100	50	300	200	100	200	100	50	300	200	100				
Rated thrust (N)	42.7	85.5	170.9	33.8	50.7	101.5	42.7	85.5	170.9	33.8	50.7	101.5				
Stroke (mm)	30/50		30/50		30/50		30/50		25/50		25/50					
Encoder Pulse Count (pulse/rev)	1048		1048		1048		1048		1048		1048					

### RCS2CR series

Model	RN5NB/ RP5NB			
Motor type	200V AC servo motor (60W)			
Body width (mm)	W: 46 × H: 46			
L Dimension (mm)	108/133			
Cleanliness (0.1µm, Fed.Std. 209D)	Class 100			
Positioning repeatability (mm)	±0.02			
Lead (mm)	10	5	2.5	
Max. payload (kg)	Horizontal	5	10	20
	Vertical	1.5	3	6
Max speed (mm/s)	380	250	125	
Rated thrust (N)	89	178	356	
Stroke (mm)	50/75			
Encoder Pulse Count (pulse/rev)	1600			

## Rotary (Cleanroom type)

### RCP2CR series

Model	RTBS(L)/RTCS(L)		RTB(L)/RTC(L)		RTBB(L)/RTCB(L)	
Motor type	Stepper motor (□20)		Stepper motor (□28)		Stepper motor (□35)	
Body width (mm)	W: ~68 × L: ~78		W: ~81 × L: ~125		W: ~114 × L: ~168	
Cleanliness (0.1µm, Fed.Std. 209D)	Class 10		Class 10		Class 10	
Positioning repeatability (deg.)	±0.05		±0.01		±0.01	
Deceleration ratio	1/30	1/45	1/20	1/30	1/20	1/30
Max. torque (N·m)	0.24	0.36	1.1	1.7	3	4.6
Max speed (deg./s)	400	266	600	400	600	400
Operation range (deg.)	330/360+		330/360+		330/360+	
Allowable inertia moment (kg/m <sup>2</sup> )	0.0023	0.0035	0.01	0.015	0.02	0.03
Encoder Pulse Count (pulse/rev)	800		800		800	

### DDACR series

Model	LT18C□A	LH18C□A
Motor type	200V AC servo motor (200W)	200V AC servo motor (600W)
Body width (mm)	W: 180 × H: 70	W: 180 × H: 122.8
Cleanliness (ISO 14644-1 standard)	Class 2.5 or equivalent	Class 2.5 or equivalent
Positioning repeatability (sec.)	~ ±3.7	~ ±3.7
Rated torque (N·m)	8.4	25
Maximum instantaneous torque (N·m)	25.2	75
Max speed (deg./s)	1800	1440
Operation range (deg.)	360+	360+
Allowable inertia moment (kg/m <sup>2</sup> )	0.6	1.8
Encoder Pulse Count (pulse/rev)	~1,048,576	~1,048,576

## RCS4CR series

Model	Standard												Wide																	
	SA4C				SA6C				SA7C				SA8C				WSA10C		WSA12C		WSA14C		WSA16C							
Motor type	200V AC servo motor (60W)				200V AC servo motor (100W)				200V AC servo motor (200W)				200V AC servo motor (400W)				200V AC servo motor (60W)		200V AC servo motor (100W)		200V AC servo motor (200W)		200V AC servo motor (400W)							
Body width (mm)	W: 40 × H: 48				W: 58 × H: 62.5				W: 70 × H: 67.5				W: 85 × H: 67.5				W: 100 × H: 47		W: 120 × H: 56		W: 140 × H: 68		W: 160 × H: 75							
L Dimension (mm)	ST+~291				ST+~339.5				ST+~388				ST+~433				ST+~416		ST+~418		ST+~484.5		ST+~535							
Cleanliness (ISO 14644-1 standard)	Class 2.5 or equivalent				Class 2.5 or equivalent				Class 2.5 or equivalent				Class 2.5 or equivalent				Class 2.5 or equivalent		Class 2.5 or equivalent		Class 2.5 or equivalent		Class 2.5 or equivalent							
Positioning repeatability (mm)	±0.01 / ±0.005				±0.01 / ±0.005				±0.01 / ±0.005				±0.01 / ±0.005				±0.01 / ±0.005		±0.01 / ±0.005		±0.01 / ±0.005		±0.01 / ±0.005							
Lead (mm)	16	10	5	2.5	20	12	6	3	24	16	8	4	20	10	5	16	10	5	2.5	20	12	6	3	24	16	8	4	20	10	5
Max. payload (kg)	Horizontal				Vertical				Horizontal				Vertical				Horizontal		Vertical		Horizontal		Vertical							
	10	14	17	20	18	30	45	45	30	40	45	50	60	80	90	7	16	27	40	15	25	45	55	20	45	65	80	60	80	100
Max speed (mm/s)	960	600	300	150	1200	720	360	180	1500	1000	500	240	1200	600	300	960	600	300	150	1200	720	360	180	1440	960	480	240	1200	600	300
Rated thrust (N)	53	85	170	340	85	142	283	566	142	214	427	855	339	678	1357	53	85	170	340	85	142	283	566	142	214	427	855	339	678	1357
Stroke (mm)	50~500 (50mm each)				50~800 (50mm each)				50~800 (50mm each)				50~1100 (50mm each)				50~500 (50mm each)		50~800 (50mm each)		50~800 (50mm each)		50~1100 (50mm each)							
Encoder Pulse Count (pulse/rev)	16384				16384				16384				16384				16384		16384		16384		16384							

## ISDACR series

Model	Standard				Intermediate Support				
	W-600		W-750		WX-600		WX-750		
Motor type	200V AC servo motor (600W)		200V AC servo motor (750W)		200V AC servo motor (600W)		200V AC servo motor (750W)		
Body width (mm)	W: 198 × H: 132		W: 198 × H: 132		W: 198 × H: 132		W: 198 × H: 132		
L Dimension (mm)	ST+479		ST+499		ST+665		ST+665		
Cleanliness (ISO 14644-1 standard)	Class 2.5 or equivalent		Class 2.5 or equivalent		Class 2.5 or equivalent		Class 2.5 or equivalent		
Positioning repeatability (mm)	±0.01 / ±0.02		±0.01 / ±0.02		±0.01 / ±0.02		±0.01 / ±0.02		
Lead (mm)	40	20	10	50	25	40	20	50	25
Max. payload (kg)	Horizontal		Vertical		Horizontal		Vertical		
	60	120	150	60	120	60	120	60	120
Max speed (mm/s)	2000	1000	500	2000	1250	2000	1000	2000	1250
Rated thrust (N)	255	510	1020	255	510	255	510	255	510
Stroke (mm)	100~1300 (50mm each)		100~1300 (50mm each)		900~2500 (50mm each)		900~2500 (50mm each)		
Encoder Pulse Count (pulse/rev)	16384		16384		16384		16384		

## SSPDACR series

Model	SXM				MXM				LXM							
Motor type	200V AC servo motor (200W)				200V AC servo motor (400W)				200V AC servo motor (750W)							
Body width (mm)	W:100 × H:75				W:130 × H:90				W:155 × H:105							
L Dimension (mm)	ST+~392				ST+~455				ST+~527							
Cleanliness (ISO 14644-1 standard)	Class 2.5 or equivalent				Class 2.5 or equivalent				Class 2.5 or equivalent							
Positioning repeatability (mm)	±0.005				±0.005				±0.005							
Lead (mm)	30	20	10	40	20	10	50	25	60	30	15					
Max. payload (kg)	Horizontal				Vertical				Horizontal				Vertical			
	30	45	90	45	90	120	60	120	4	6	12	6	12	25	12	25
Max speed (mm/s)	1600	1100	600	1600	1100	600	1600	1100	1600	1100	1600	1100				
Rated thrust (N)	113.9	170.9	341.8	169.6	339.1	678.3	255	510								
Stroke (mm)	100~1100 (50mm each)				100~1300 (50mm each)				100~1500 (50mm each)							
Encoder Pulse Count (pulse/rev)	16384				16384				16384							

## Gripper (Cleanroom type)

### RCP2CR series

GS5NB/GD5NB		SD5NB			
200V AC servo motor (60W)		200V AC servo motor (60W)			
W:46 × H:~88		W: 48 × H: 94			
113/138		211.5/242.5			
Class 100		Class 100			
±0.02		±0.02			
10	5	2.5	10	5	2.5
5	10	20	5	10	20
1.5	3	6	1.5	3	6
380	250	125	380	250	125
89	178	356	89	178	356
50/75		50/75			
1600		1600			

Model	Slide type			Lever type		3 Claw Slide Type	
	GRSS	GRS	GRM	GRLS	GR3SS	GR3SM	
Motor type	Stepper motor (□20)	Stepper motor (□20)	Stepper motor (□28)	Stepper motor (□20)	Stepper motor (□28)	Stepper motor (□42)	
Body width (mm)	W: 46 × H: 94	W: 74 × H: 97	W: 79 × H: 108	W: 42 × H: 73	W: 62 × H: 120	W: 80 × H: 137	
Cleanliness (ISO 14644-1 standard)	Class 2.5 or equivalent			Class 2.5 or equivalent		Class 2.5 or equivalent	
Positioning repeatability (mm/deg)	±0.01			±0.01		±0.01	
Lead	1.57 or equiv.			1.0 or equiv.		1.1 or equiv.	
	Ball screw lead (mm)			Pulley Deceleration Ratio		-	
	1/30			1/1		1/30	
Max grip force (N) (both sides)	14			21		80	
Stroke (one side) (mm/deg)	4			5		7	
Encoder Pulse Count (pulse/rev)	800			800		800	

## SCARA Robot (Cleanroom type)

### IXP series

Model	□C3515	□C4515	□C5520	□C6520
Arm length (mm)	350	450	550	650
Vertical Axis Stroke (mm)	150	150	200	200
Cleanliness (ISO 14644-1 standard)	Class 3.5 or equivalent			
Max. payload (kg)	3	3	6	6
Standard cycle time (s)	0.76	0.74	0.79	0.93
Composite max speed (mm/s)	2399	2194	2501	2314

### IXA series

Model	4NSC3015	4NSC45□□	4NSC60□□
Arm length (mm)	300	450	600
Vertical Axis Stroke (mm)	150	180/330	180/330
Cleanliness (ISO 14644-1 standard)	Class 3		
Max. payload (kg)	6	8	10
Standard cycle time (s)	0.27	0.28	0.27
Composite max speed (mm/s)	6032	6623	6414



The values shown for speed and payload are the maximum for each.  
Please refer to the catalog or each product information page on our website for more information.  
Speed: Longer strokes may cause the maximum speed to decrease due to the critical rotational speed of the ball screw.  
Payload: When the speed / acceleration is increased, the payload will be reduced.

# Specification List Outline

## Slider Type (Dust-proof/Splash-proof)

### RCP4W series

Model	SA5C		SA6C		SA7C	
Motor type	Stepper motor (□35)		Stepper motor (□42)		Stepper motor (□56)	
Body width (mm)	W:57 × H:63.5		W:64 × H:73.5		W:79 × H:80.5	
L Dimension (mm)	ST+285		ST+295		ST+335	
Ingress protection	IP65		IP65		IP65	
Positioning repeatability (mm)	±0.02		±0.02		±0.02	
Lead (mm)	10	5	12	6	16	8
Max. payload (kg) *Horizontal only	5	10	7.5	15	10	20
Max speed (mm/s)	330	165	400	200	530	265
Max. Push Thrust (N)	66.9	147.9	82.8	179.5	209	418
Stroke (mm)	100~500 (50mm each)		100~600 (50 mm each)		100~700 (50 mm each)	
Encoder Pulse Count (pulse/rev)	800		800		800	

### ISWA series

Model	S			M-100			M-200		
Motor type	200V AC servo motor (60W)			200V AC servo motor (100W)			200V AC servo motor (200W)		
Body width (mm)	W:94 × H:100			W: 125 × H: 115			W: 125 × H: 115		
L Dimension (mm)	ST+338			ST+408			ST+408		
Ingress protection	IP65			IP65			IP65		
Positioning repeatability (mm)	±0.01 / ±0.02			±0.01 / ±0.02			±0.01 / ±0.02		
Lead (mm)	16	8	4	10	5	20	10	5	10
Max. payload (kg) *Horizontal only	7	20	45	30	70	30	70	30	70
Max speed (mm/s)	800	400	200	500	250	1000	500	250	1000
Rated thrust (N)	63.7	127.4	254.8	169.5	340.1	169.5	340.1	169.5	340.1
Stroke (mm)	100~600 (50 mm each)			100~1000 (50 mm each)			100~1000 (50 mm each)		
Encoder Pulse Count (pulse/rev)	16384			16384			16384		

## Rod Type (Dust-proof/Splash-proof)

### RCP6W series

Model	Standard												Radial cylinder														
	RA4C/RA4R			RA6C/RA6R			RA7C/RA7R			RA8C/RA8R			RRA4C/RRA4R			RRA6C/RRA6R			RRA7C/RRA7R			RRA8C/RRA8R					
Motor type	Stepper motor (□35)			Stepper motor (□42)			Stepper motor (□56)			Stepper motor (□60)			Stepper motor (□35)			Stepper motor (□42)			Stepper motor (□56)			Stepper motor (□60)					
Body width (mm)	W: 40 × H: 46			W: 58 × H: 61			W: 70 × H: 73			W: 85 × H: 92.5			W:45 × H:53			W:65 × H:68.5			W:78 × H:76			W: 85 × H: 86					
L Dimension (mm)	Straight			ST+~269			ST+~292			ST+~353.5			ST+~393			ST+~290			ST+~321.5			ST+~405.5			ST+~421.3		
	Side-mounted			ST+129			ST+150			ST+180			ST+239.5			ST+150			ST+178.5			ST+232			ST+262.3		
Ingress protection	IP65			IP65			IP65			IP65			IP65			IP65			IP65			IP65			IP65		
Positioning repeatability (mm)	±0.01			±0.01			±0.01			±0.01			±0.01			±0.01			±0.01			±0.01			±0.01		
Lead (mm)	10	5	2.5	12	6	3	16	8	4	20	10	5	10	5	2.5	12	6	3	16	8	4	20	10	5			
Max. payload (kg)	Horizontal			11	23	40	25	40	60	80	30	60	100	11	23	40	25	40	60	50	60	80	30	60	100		
	Vertical			2	4	10	4	10	20	8	18	28	3	35	70	2	4	10	4	10	20	8	18	28	3	35	70
Max speed (mm/s)	525	350	175	630	420	225	420	350	140	350	200	100	525	350	175	630	420	210	420	350	140	350	200	100			
Max. Push Thrust (N)	77	155	310	93	185	370	273	547	1094	500	1000	2000	77	155	310	93	185	370	273	547	1094	500	1000	2000			
Stroke (mm)	50~200 (50 mm each)			50~300 (50mm each)			50~300 (50mm each)			50~300 (50mm each)			50~400 (50mm each)			50~400 (50mm each)			50~500 (50 mm each)			50~700 (50 mm each)					
Encoder Pulse Count (pulse/rev)	8192			8192			8192			8192			8192			8192			8192			8192			8192		

### RCA2W series

Model	RN3NB/RP3NB			RN4NB/RP4NB			GS3NB/GD3NB			GS4NB/GD4NB			SD3NB			SD4NB					
Motor type	24V AC servo motor (10W)			24V AC servo motor (20W)			24V AC servo motor (10W)			24V AC servo motor (20W)			24V AC servo motor (10W)			24V AC servo motor (20W)					
Body width (mm)	W: 28 × H: 28			W: 34 × H: 34			W: 28 × H: ~56			W: 34 × H: ~68			W: 29 × H: 60			W: 35 × H: 72					
L Dimension (mm)	73.5/93.5			80/100			78.5/98.5			85/105			133/164			144.5/175.5					
Ingress protection	IP52			IP52			IP52			IP52			IP52			IP52					
Positioning repeatability (mm)	±0.02			±0.02			±0.02			±0.02			±0.02			±0.02					
Lead (mm)	4	2	1	6	4	2	4	2	1	6	4	2	4	2	1	6	4	2			
Max. payload (kg)	Horizontal			0.75	1.5	3	2	3	6	0.75	1.5	3	2	3	6	0.75	1.5	3	2	3	6
	Vertical			0.25	0.5	1	0.5	0.75	1.5	0.25	0.5	1	0.5	0.75	1.5	0.25	0.5	1	0.5	0.75	1.5
Max speed (mm/s)	200	100	50	300	200	100	200	100	50	300	200	100	200	100	50	300	200	100			
Rated thrust (N)	42.7	85.5	170.9	33.8	50.7	101.5	42.7	85.5	170.9	33.8	50.7	101.5	42.7	85.5	170.9	33.8	50.7	101.5			
Stroke (mm)	30/50			30/50			30/50			30/50			25/50			25/50					
Encoder Pulse Count (pulse/rev)	1048			1048			1048			1048			1048			1048					

## Rotary (Dust-proof/Splash-proof)

### RCP2W series

Model	RTBS(L)/RTCS(L)		RTB(L)/RTC(L)		RTBB(L)/RTCB(L)	
Motor type	Stepper motor (□20)		Stepper motor (□28)		Stepper motor (□35)	
Body width (mm)	W:~68 × L:~78		W: ~81 × L: ~125		W: ~114 × L: ~168	
Ingress protection	IP54		IP54		IP54	
Positioning repeatability (deg.)	±0.05		±0.01		±0.01	
Deceleration ratio	1/30	1/45	1/20	1/30	1/20	1/30
Max. torque (N·m)	0.24	0.36	1.1	1.7	3	4.6
Max speed (deg./s)	400	266	600	400	600	400
Operation range (deg.)	330/360+		330/360+		330/360+	
Allowable inertia moment (kg/m <sup>2</sup> )	0.0023	0.0035	0.01	0.015	0.02	0.03
Encoder Pulse Count (pulse/rev)	800		800		800	

### DDW series

Model	LH18C□□A
Motor type	200V AC servo motor (600W)
Body width (mm)	W:195 × H:160.3
Ingress protection	IP66M
Positioning repeatability (sec)	~ ±3.7
Rated torque (N·m)	12
Maximum instantaneous torque (N·m)	67
Max speed (deg./s)	1440
Operation range (deg.)	360+
Allowable inertia moment (kg/m <sup>2</sup> )	1.6
Encoder Pulse Count (pulse/rev)	~1,048,576

## Gripper (Dust-proof/Splash-proof)

### RCP2W series

L-200		L-400	
200V AC servo motor (200W)		200V AC servo motor (400W)	
W: 155 × H: 125		W: 155 × H: 125	
ST+476		ST+476	
IP65		IP65	
±0.01 / ±0.02		±0.01 / ±0.02	
20	10	20	
30	70	70	
1000	500	1000	
169.5	340.1	340.1	
100~1200 (50 mm each)		100~1200 (50 mm each)	
16384		16384	

Model	Slide type			Lever type	3 Claw Slide Type	
	GRSS	GRS	GRM	GRLS	GR3SS	GR3SM
Motor type	Stepper motor (□20)	Stepper motor (□20)	Stepper motor (□28)	Stepper motor (□20)	Stepper motor (□28)	Stepper motor (□42)
Body width (mm)	W: 46 × H: 94	W: 74 × H: 97	W: 79 × H: 108	W: 42 × H: 73	W: 62 × H: 120	W: 80 × H: 137
Ingress protection	IP50	IP50	IP50	IP50	IP50	IP50
Positioning repeatability (mm/deg)	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01
Lead	Ball screw lead (mm)	1.57 or equiv.	1.0 or equiv.	1.1 or equiv.	-	2.5 or equiv.
	Pulley Deceleration Ratio	1/30	1/1	1/1	1/30	1/30
Max grip force (N) (both sides)	14	21	80	6.4	22	102
Stroke (one side) (mm/deg)	4	5	7	90	5	7
Encoder Pulse Count (pulse/rev)	800	800	800	800	800	800

### RCP5W series

Wide radial cylinder											
WRA10C/WRA10R			WRA12C/WRA12R			WRA14C/WRA14R			WRA16C/WRA16R		
Stepper motor (□35)			Stepper motor (□42)			Stepper motor (□56)			Stepper motor (□60)		
W: 100 × H: 45			W: 120 × H: 48			W: 140 × H: 60			W: 160 × H: 69		
ST+~355.3			ST+~374.6			ST+~425.8			ST+~449.8		
ST+219.9			ST+223.4			ST+253.4			ST+297.9		
IP65			IP65			IP65			IP65		
±0.01			±0.01			±0.01			±0.01		
10	5	2.5	12	6	3	16	8	4	20	10	5
11.5	28	40	30	55	70	50	65	85	30	60	100
-	4	10	-	4	14	-	11.5	21.5	-	30.5	59
525	350	175	560	400	225	420	280	130	360	220	110
77	155	310	93	185	370	273	547	1094	500	1000	2000
50~500 (50mm each)			50~500 (50mm each)			50~600 (50 mm each)			50~800 (50mm each)		
8192			8192			8192			8192		

Model	RA10C		
Motor type	Stepper motor (□86)		
Body width (mm)	W: 108 × H: 106		
L Dimension (mm)	ST+496.8		
Ingress protection	IP65		
Positioning repeatability (mm)	±0.02		
Lead (mm)	10	5	2.5
Max. payload (kg)	Horizontal	64	120
	Vertical	64	80
Max speed (mm/s)	200	100	50
Max. Push Thrust (N)	1500	3000	6000
Stroke (mm)	50~800 (50mm each)		
Encoder Pulse Count (pulse/rev)	800		

### RCS2W series

Model	RN5NB/RP5NB			GS5NB/GD5NB			SD5NB		
Motor type	200V AC servo motor (60W)			200V AC servo motor (60W)			200V AC servo motor (60W)		
Body width (mm)	W: 46 × H: 46			W: 46 × H: ~90			W: 48 × H: 94		
L Dimension (mm)	108/133			113/138			211.5/242.5		
Ingress protection	IP52			IP52			IP52		
Positioning repeatability (mm)	±0.02			±0.02			±0.02		
Lead (mm)	10	5	2.5	10	5	2.5	10	5	2.5
Max. payload (kg)	Horizontal	5	10	20	5	10	20	5	10
	Vertical	1.5	3	6	1.5	3	6	1.5	3
Max speed (mm/s)	380	250	125	380	250	125	380	250	125
Rated thrust (N)	89	178	356	89	178	356	89	178	356
Stroke (mm)	50/75			50/75			50/75		
Encoder Pulse Count (pulse/rev)	1600			1600			1600		

## SCARA Robot (Dust-proof/Splash-proof)

### IXP series

Model	□W3515	□W4515	□W5520	□W6520
Arm length (mm)	350	450	550	650
Vertical Axis Stroke (mm)	150	150	200	200
Ingress protection *excluding bellows	IP65	IP65	IP65	IP65
Max. payload (kg)	3	3	6	6
Standard cycle time (s)	0.76	0.74	0.79	0.93
Composite max speed (mm/s)	2399	2194	2501	2314

### IXA series

Model	4NSW3015	4NSW45□□	4NSW60□□	4NSW80□□	4NSW100□□	4NIHW12040
Arm length (mm)	300	450	600	800	1000	1200
Vertical Axis Stroke (mm)	150	180/330	180/330	200/400	200/400	400
Ingress protection *excluding bellows	IP65	IP65	IP65	IP65	IP65	IP65
Max. payload (kg)	6	8	10	21	21	47
Standard cycle time (s)	0.38	0.38	0.38	0.3	0.33	0.61
Composite max speed (mm/s)	5126	6981	6039	5724	6492	8098



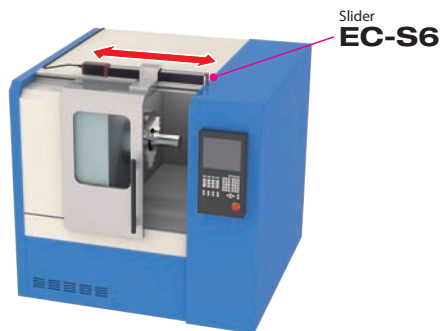
The values shown for speed and payload are the maximum for each.  
Please refer to the catalog or each product information page on our website for more information.  
Speed: Longer strokes may cause the maximum speed to decrease due to the critical rotational speed of the ball screw.  
Payload: When the speed / acceleration is increased, the payload will be reduced.

# Application

## ELECYLINDER (2-point positioning)



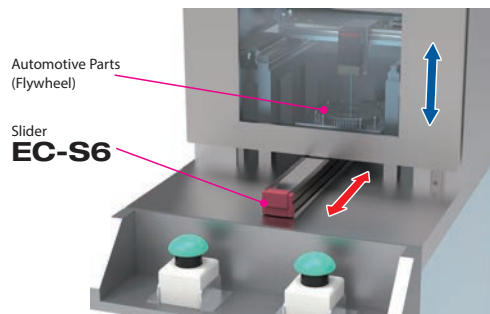
Door opening/closing mechanism for processing machines



In addition to speed, acceleration and deceleration can be set respectively, enabling shockless opening and closing while increasing speed.



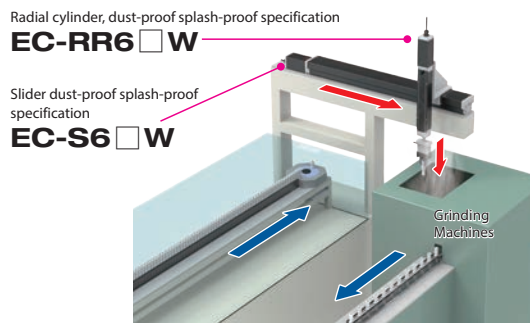
Laser marking equipment



Positions can be set in increments of 0.01mm, and feedback control of 1,000 times per second ensures repeatable and accurate engraving.



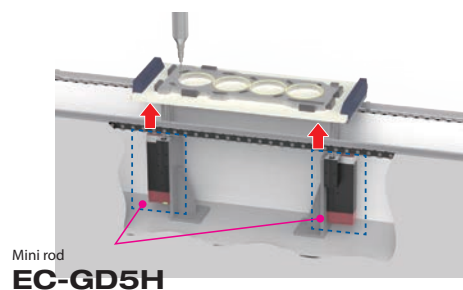
Ceramic product grinding process



Since S6□W is IP54 or equivalent and RR6□W is IP67 rated, they can be used in machining processes where dust is generated.



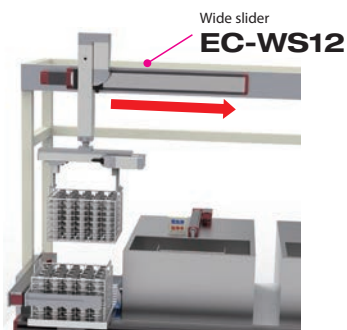
Sealant application equipment



Compact slender type with built-in controller and shortened overall length. Wireless teaching is possible by using the teaching tool TB-03 or Wireless Teaching Controller.



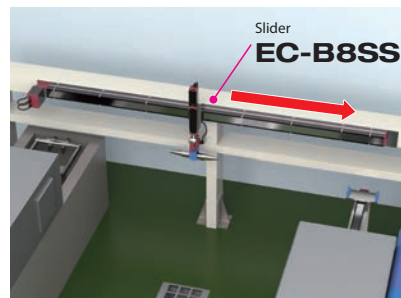
Workpiece transfer device for washing machines



The wide slider type has high moment rigidity and can handle large overhangs. In addition, vibration during movement can be prevented by individual settings of acceleration, speed, and deceleration.



In-process transfer of motor shafts

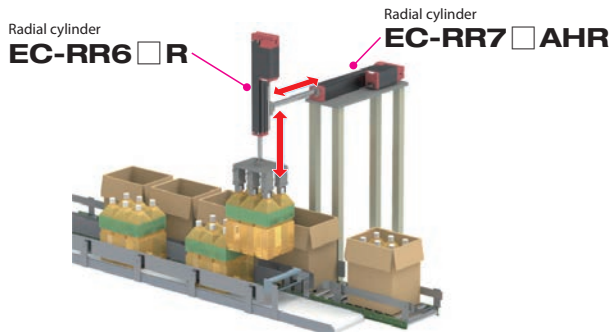


The belt-driven type is ideal for long-distance interprocess transfer because there is no speed reduction due to strokes. Battery-less absolute encoder eliminates the need for home return when power is turned on.





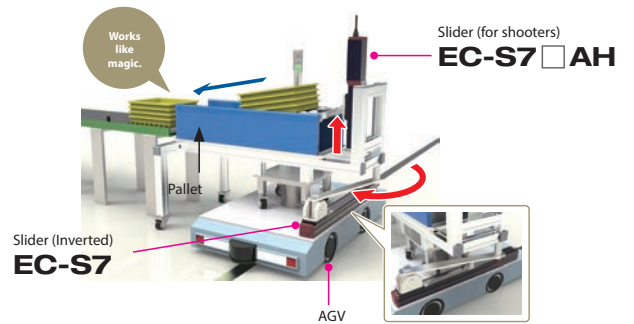
### Plastic Bottle Conveyor



Radial cylinder has a built-in guide, so it can support radial loads without an external guide.



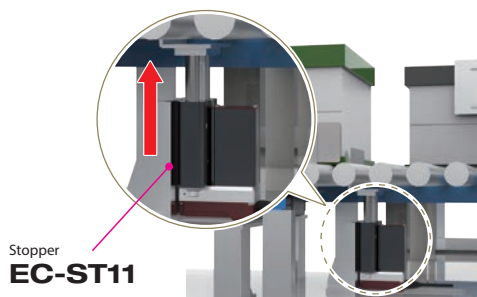
### Equipment for inverting pallets loaded on AGVs



The built-in controller and 24V power supply make it ideal for installation in AGVs.



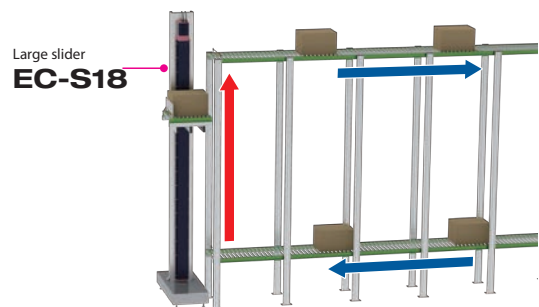
### Stopper for foldable container line



Sliding bushing construction is resistant to radial impact loads, making it ideal for stopper applications. The 24V power supply allows it to be used in any location.



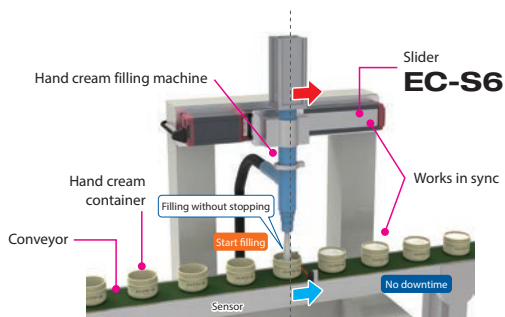
### Corrugated Cardboard Transfer Lift



High thrust type with maximum payload Horizontal 400kg, Vertical 80kg. Vertical mounting is possible even with long strokes, making it ideal for lifter applications.



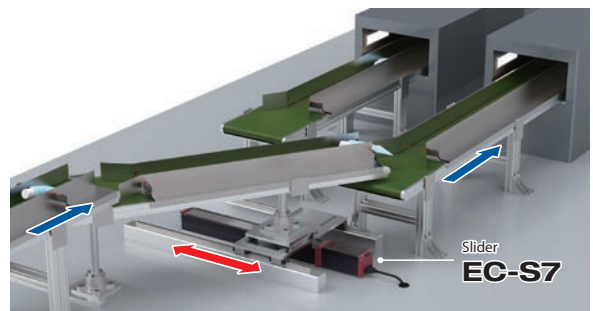
### Hand cream filling equipment



The speed can be set in increments of 0.01 mm/s, allowing the conveyor speed to follow the operation. Reduces conveyor downtime.



### Cosmetic conveyor sorting equipment



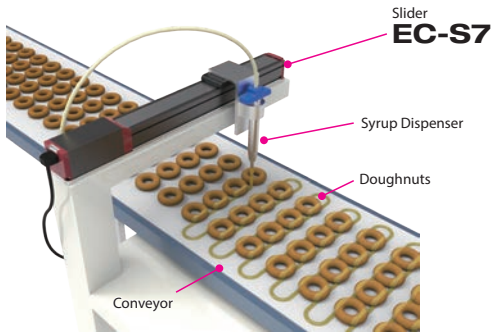
Since there is no degradation of speed due to aging, the allocation can be performed as set for a long period of time.

# Application

## ELECYLINDER (2-point positioning)



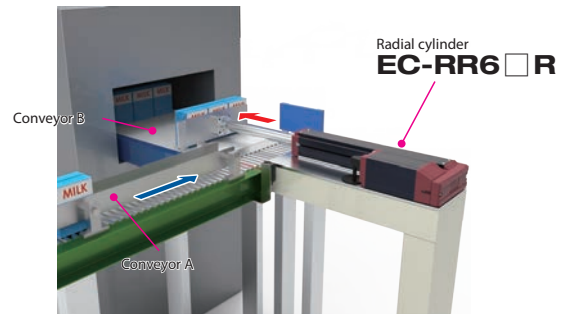
### Equipment for dispensing syrup on donuts



The speed feedback of 20,000 times per second ensures that the moving speed is stable and evenly syrupy.



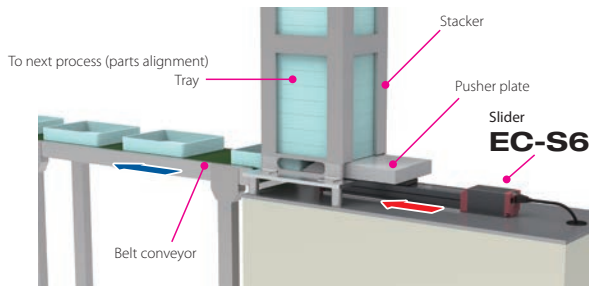
### Milk carton transfer equipment



In addition to speed, acceleration and deceleration can be set respectively, thus preventing milk cartons from being knocked over or rolled in.



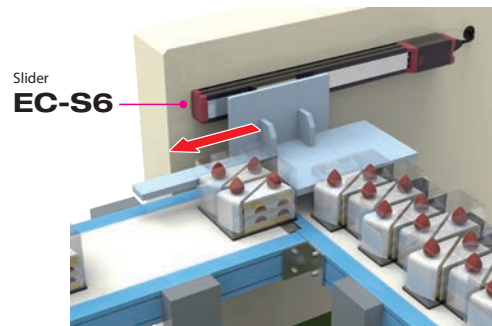
### Tray unstacking equipment



Since speed feedback is performed 20,000 times per second, the same timing can be used for each tray.



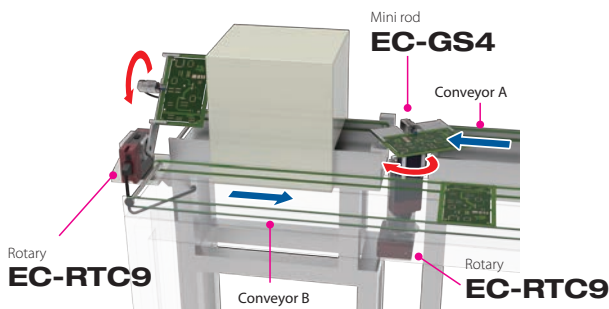
### Shortcake transfer equipment



Smooth start/stop by adjusting acceleration and deceleration allows cakes to be transferred to the conveyor without collapsing.



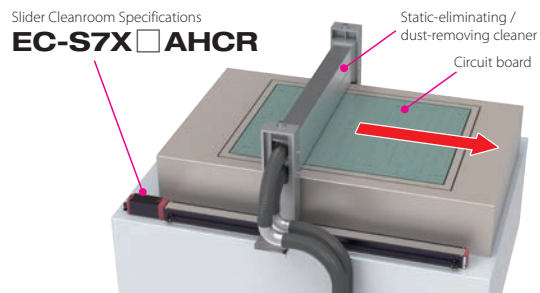
### Circuit board reverser equipment



Rotary type also has adjustable acceleration and deceleration, allowing the speed to be increased while minimizing the impact of reversal.



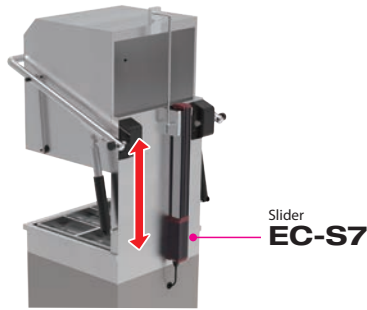
### Static-eliminating/dust-removing cleaner for circuit boards



Clean room specifications correspond to ISO Class 2.5 or 3. Ideal for transport in clean environments.



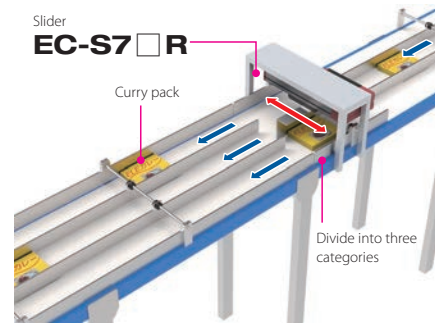
### Commercial Dishwasher door open/close



Driven by 24V power supply, no wiring work is required in the kitchen. The built-in controller helps save space.



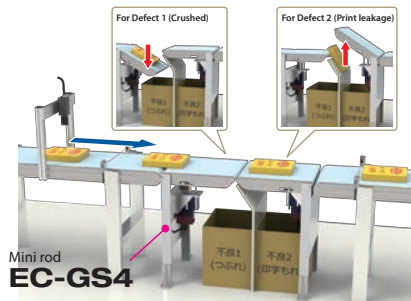
### Equipment for sorting curry packs to the next process line



Speed feedback of 20,000 times per second ensures stable speed and eliminates misclassification.



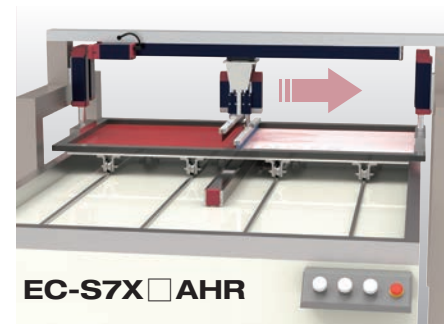
### Damaged instant soup package sorting equipment



Compact slender type with built-in controller and shortened overall length. Wireless teaching is possible by using the teaching tool TB-03 or Wireless Teaching Controller.



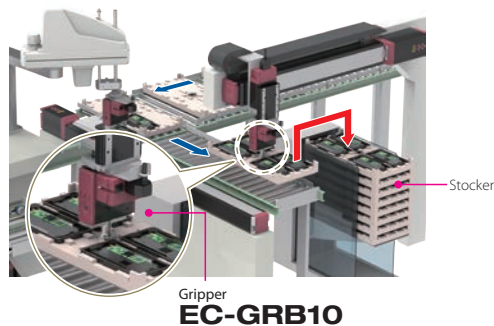
### Silk screen printing machine



If the installation space in the longitudinal direction is limited, we recommend the motor side-mounted type.



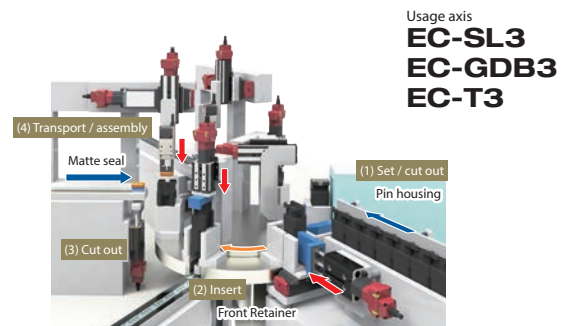
### Electronic component transfer equipment



Clamping force, standby position, and clamping start position can be easily set numerically. Wireless teaching is possible by using the teaching tool TB-03 or Wireless Teaching Controller.



### Index table connector assembly equipment



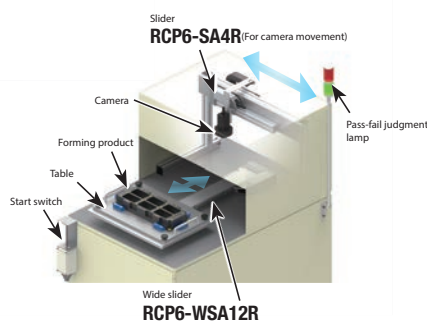
A palm-sized electric actuator. Up to max. 16 axes can be connected by using the REC controller.

# Application

## Multi-point positioning / Unit products / Cleanroom, dust-proof, splash-proof



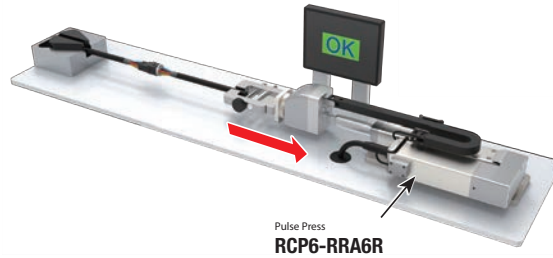
### Insert missing parts inspection equipment for resin cases



The inspection camera is brought to a smooth standstill by adjusting acceleration and deceleration. This can significantly reduce standby time due to camera vibration.



### Tensile testing of wire harnesses

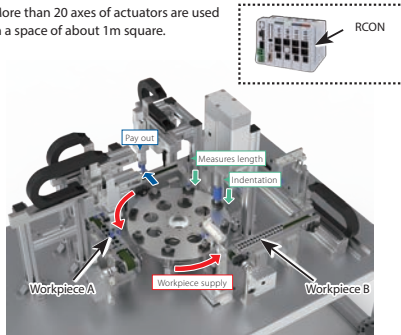


Pulse presses can handle loads in the tensile direction and have no limit on tensile time. High precision judgments are possible at a low cost.



### Automatic assembly machine with indexing system (press fitting of bushings)

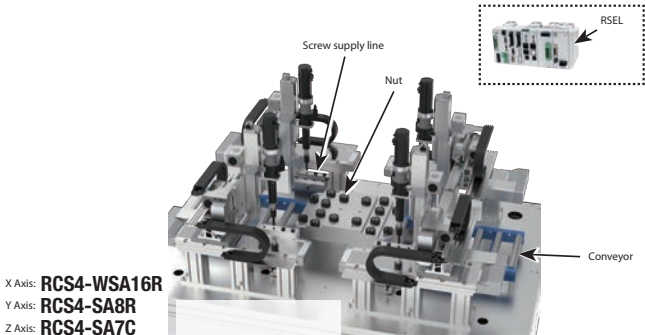
More than 20 axes of actuators are used in a space of about 1m square.



R-unit controllers can be used with a mix of 24V/200V motors. A single unit can connect up to 16 axes, reducing price and installation space.



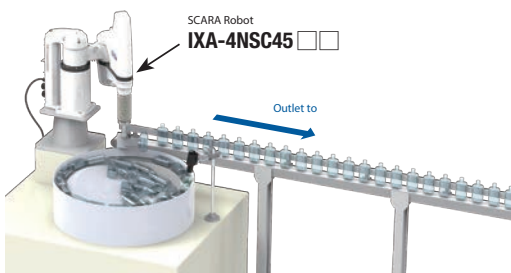
### Orthogonal 3-axis nutrunner screw tightening equipment



IAI's slider type incorporates a ball circulating type with a built-in linear guide, making it suitable for applications with large rotational reaction forces and moment loads.



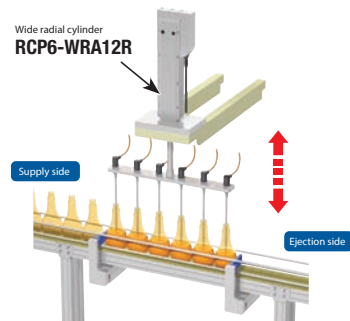
### Pick and place medical bottles



The IXA cleanroom specification is ISO Class 3 compliant, making it ideal for operation in clean environments. Preliminary verification on a PC is possible by using simulation software.



### Shampoo bottle filling equipment



The speed can be changed during movement, allowing the nozzle tip to move in accordance with the rate of rise of the liquid surface. By adjusting acceleration and deceleration, shampoo foaming can be prevented.



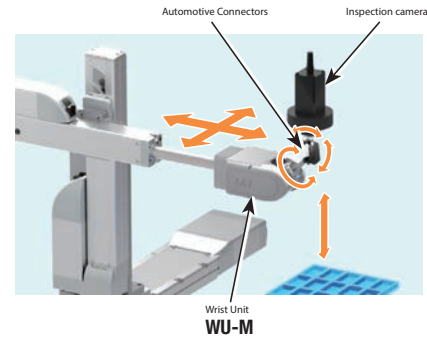
### Fast pick and place of radiators and tips



IXA, the fastest in the industry, also supports push-motion operation. When fitting part A to part B, the position error can be compensated (compliance control).



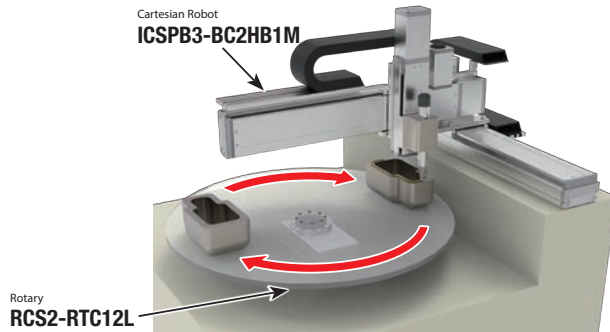
### Automotive connector inspection equipment



Diagonal approaches and tip swiveling, possible until now only with vertically articulated robots, can now be performed at a low cost. The wrist unit is capable of interpolating motion with the orthogonal axes.



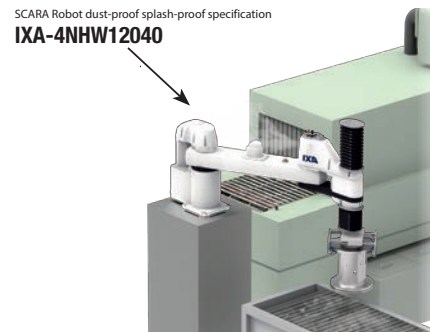
### Part sealant application equipment



Multiple target positions can be moved to the final landing point without stopping (pass operation). Since there is no need to pause, coating time can be shortened.



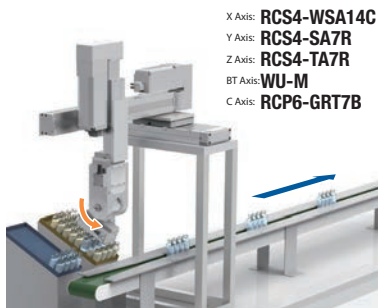
### Workpiece supply/unloading process to washing machine



The IXA's dust-proof and splash-proof specifications are IP65 compliant, so it is not affected by water vapor. The IXA-4NHW12040 can handle a max. payload of 47 kg.



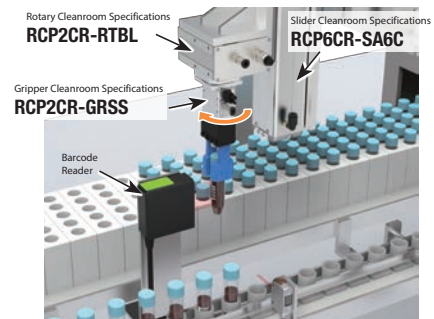
### Pick and place vials



By combining Cartesian axes and wrist units, the cost can be reduced compared to Vertical articulated robots. In addition, the size of the safety fence can be reduced.



### Barcode reading of specimen samples



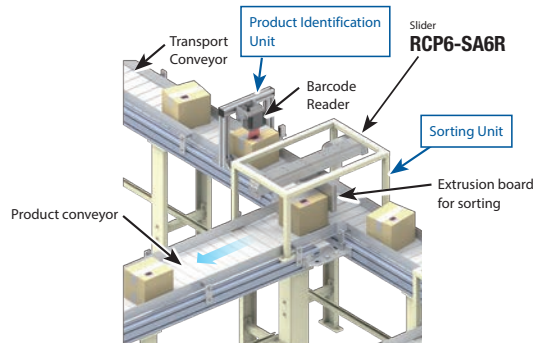
The system is ISO class 2.5 equivalent, making it ideal for operation in clean environments. The wide lineup of products allows for a combination of axes with cleanroom specifications.

# Application

## Multi-point positioning / Unit products / Cleanroom, dust-proof, splash-proof



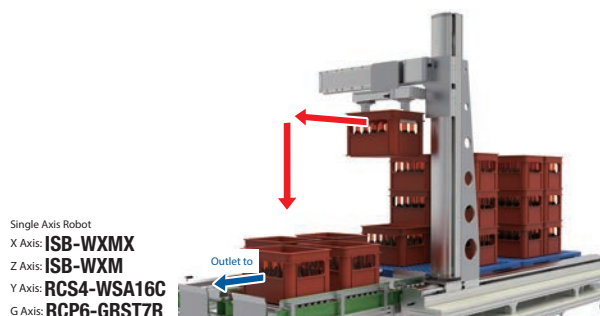
### Automatic sorting equipment for corrugated cardboard



Since the speed can be changed during the movement, the cycle time can be shortened by using low speed in the range where the extruder plate for sorting contacts the corrugated board, and then using high speed for subsequent extrusion movements.



### Beer bottle case transfer equipment

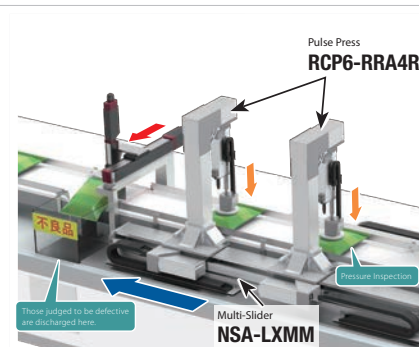


Single Axis Robot  
X Axis: **ISB-WXM**  
Z Axis: **ISB-WXM**  
Y Axis: **RCS4-WSA16C**  
G Axis: **RCP6-GRST7R**

ISB-WXM has a high payload capacity of horizontal 400 kg and vertical 80 kg. Even heavy loads can be handled with a uniaxial configuration robot.



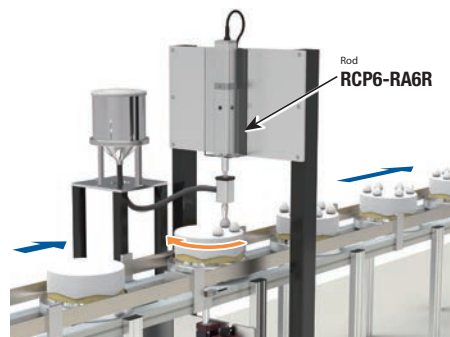
### Packaging Bag Leak Test Machine



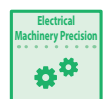
NSA's multi-slider system has two sliders that each move in tandem with the conveyor, eliminating the need to stop the conveyor for each inspection.



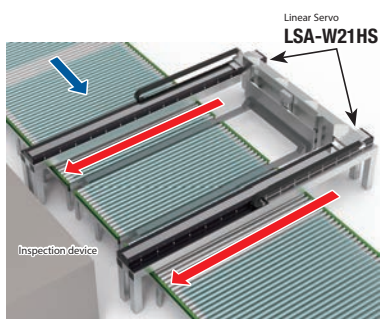
### Cake decorating equipment



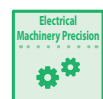
The speed can be changed while moving, so that the cream can be dispensed slowly at first and faster at the end. Multi-point positioning allows for the handling of cakes of various shapes.



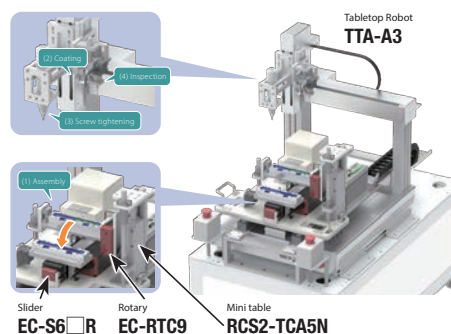
### Glass circuit board loader/unloader



Large glass circuit boards are transported by 2-axis synchronous control. Stroke is 4155 mm. There is no speed reduction even with long strokes.



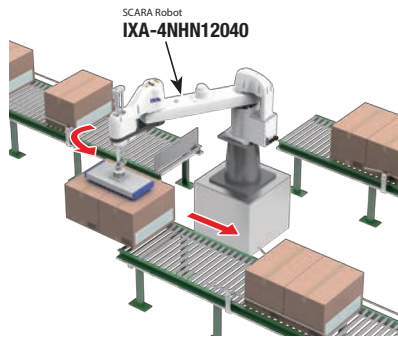
### Compact LED light assembly machine



Four processes (assembly, coating, screw tightening, and inspection) are integrated into a single tabletop robot. The number of workpiece sets can be reduced and cycle time can be shortened.



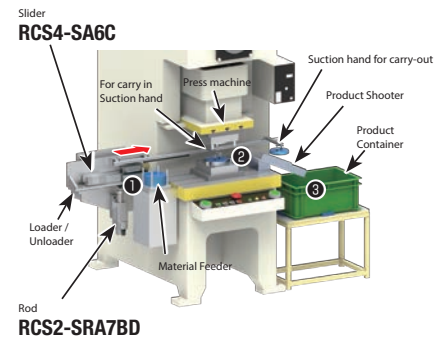
### Interconveyor transfer equipment



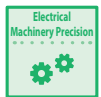
Large SCARA robot with arm length of 1200mm and maximum payload of 50kg. Collision detection and interference check functions by the controller prevent damage due to collisions.



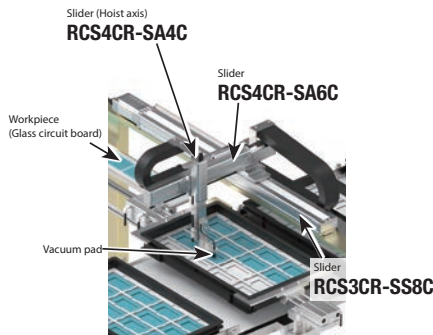
### Loader/Unloader for Press Machine



By adjusting the deceleration, the shock when X Axis stops can be reduced, preventing the workpiece from falling.



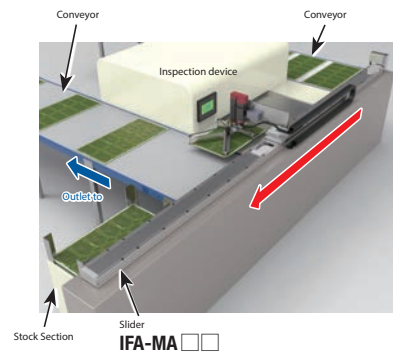
### Glass circuit board transfer equipment



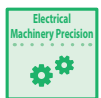
The system is ISO class 2.5 equivalent, making it ideal for operation in clean environments. Arching the motion allows palletizing with the shortest path (arch motion).



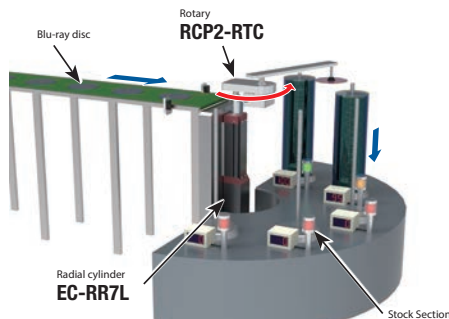
### Circuit board inspection inter-process transfer equipment



The belt-driven type is ideal for long-distance interprocess transfer because there is no speed reduction due to strokes. Stroke up to 3200mm, max. speed up to 3000mm/s.



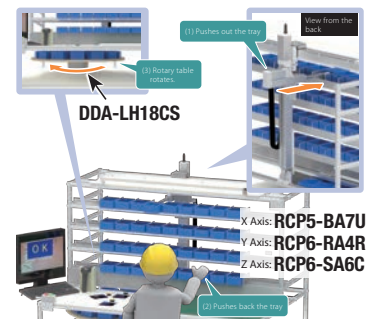
### Blu-ray disc process feed



Rotary multi-point positioning increases the number of stock sections and eliminates setup changeover. Feedback control ensures reliable feeding to the stock section.



### Electric parts rack



Since the system does not use a sensor, but uses the actuator's position information to confirm take-out, the cost can be reduced compared to general poka-yoke systems.



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The information contained in this product brochure may change without prior notice due to product improvements.

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