

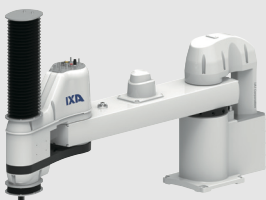
# 2023 IAI ROBOT LINEUP GUIDE

Product Overview

EleCylinder  
RoboCylinder  
Industrial robots

[www.iai-automation.com](http://www.iai-automation.com)

Available now!



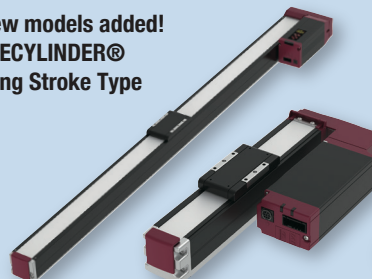
IXA  
Dust/Splash-proof  
IXA-4NSW/4NHW



Ultra  
Large Slider  
ELECYLINDER® Series

Coming soon!

New models added!  
ELECYLINDER®  
Long Stroke Type



New models added!  
ELECYLINDER®  
Cleanroom Type



# ELECYLINDER®

Simple yet high performance electric actuators that brings you profits.

Equipped with battery-less absolute encoder

Built-in controller type



ELECYLINDER®



ELECYLINDER can be operated only by ON/OFF signals like solenoid valves. It's easy to operate for beginners. You can adjust A (Acceleration), V (Velocity) and D (Deceleration) individually by input percentage. It can start/stop smoothly at high speed.

No need to connect a PC or a teaching pendant. Setting and trial operations can be performed by the ELECYLINDER alone.

Digital Speed Controller



**NEW**

Wired Teaching Controller  
TBD-1



**NEW**

Wireless Teaching Controller  
TBD-1WL



## Standard

### Rod Type

Body width (mm): 60-70  
Stroke (mm): 50-300  
Max. payload (kg):  
Horizontal 80/Vertical 19



EC-(D)R□

### Slider Type

Body width (mm): 60-70  
Stroke (mm): 50-500  
Maximum payload (kg):  
Horizontal 51/Vertical 19



EC-(D)S□

### Side-mounted motor

Body width (mm): 60-70  
Stroke (mm): 50-500  
Maximum payload (kg):  
Horizontal 51/Vertical 19



EC-(D)S□□R

### Small Type

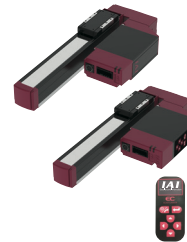
Body width (mm): 40  
Stroke (mm): 50-300  
Max. payload (kg):  
Horizontal 18/Vertical 6.5



EC-(D)S□

### Small, side-mounted motor

Body width (mm): 40  
Stroke (mm): 50-300  
Maximum payload (kg):  
Horizontal 18/Vertical 6.5



EC-(D)S□□R

## Belt drive

### Long Stroke

Body width (mm): 60-70  
Stroke (mm): 300-2600  
Maximum payload (kg):  
Horizontal 20



EC-(D)B□S  
EC-(D)B□SU

## Standard (Wide Type)

### Wide Type

Body width (mm): 100, 120  
Stroke (mm): 50-500, 50-800  
Maximum payload (kg):  
Horizontal 44, 62  
Vertical 7, 13.5



EC-(D)WS□

### Wide, side-mounted motor

Body width (mm): 100, 120  
Stroke (mm): 50-500, 50-800  
Maximum payload (kg):  
Horizontal 44, 62  
Vertical 7, 13.5



EC-(D)WS□□R

## High-rigidity

### High-rigidity Slider Type

Body width (mm): 60-80  
Stroke (mm): 50-800  
Maximum payload (kg):  
Horizontal 51/Vertical 25



EC-(D)S□□AH

### Side-mounted motor

Body width (mm): 60-80  
Stroke (mm): 50-800  
Maximum payload (kg):  
Horizontal 51/Vertical 25



EC-(D)S□□AHR

## Radial Cylinder®

### Radial Cylinder®

Body width (mm): 40-70  
Stroke (mm): 50-315  
Maximum payload (kg):  
Horizontal 35-80  
Vertical 6.5-19



EC-(D)RR□□  
EC-(D)RR□□R

## High-rigidity Radial Cylinder®

### High-rigidity Radial Cylinder®

Body width (mm): 60-70  
Stroke (mm): 550-1000



EC-(D)RR□X□AH

Body width (mm): 60-70  
Stroke (mm): 50-1000  
Maximum payload (kg):  
Horizontal 80/Vertical 28

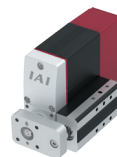


EC-(D)RR□□AH  
EC-(D)RR□□AHR

## Compact

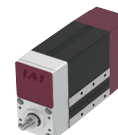
### Rod Type

Body width (mm): 60  
Stroke (mm): 30, 50  
Max. payload (kg):  
Horizontal 8  
Vertical 2.5



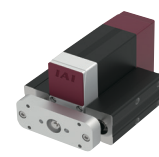
EC-GS4

Body width (mm): 30-50  
Stroke (mm): 30, 50, 150  
Max. payload (kg):  
Horizontal 8-35  
Vertical 2.5-6.5



EC-RP□

Body width (mm): 80-110  
Stroke (mm): 50, 150  
Max. payload (kg):  
Horizontal 8-35  
Vertical 2.5-6.5



EC-GD□

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**Compact (cont.)**

Table Type		Ultra Mini Slider Type	Ultra Mini Rod Type	Ultra Mini Table Type
Body width (mm): 30-40 Stroke (mm): 30, 50, 150 Max. payload (kg): Horizontal 8-12.5 Vertical 2.5-6.5	Body width (mm): 80-90 Stroke (mm): 30, 50, 100, 150 Max. payload (kg): Horizontal 20 Vertical 6.5	Body width (mm): 30 Stroke (mm): 50-200 Max. payload (kg): Horizontal 2 Vertical 0.7	Body width (mm): 40 Stroke (mm): 10-50 Max. payload (kg): Horizontal 2 Vertical 0.8	Body width (mm): 30 Stroke (mm): 10-50 Max. payload (kg): Horizontal 2 Vertical 0.8
EC-TC□	EC-TW□	EC-SL3	EC-GD□3	EC-T3

**Others**

Rotary	Stopper Cylinder	Large Slider Type		Gripper
Body width (mm): 90-120 Max. swaying angle (degree): 330 Max. speed (degree/s): 600	Body width (mm): 150 Stroke (mm): 50	Body width (mm): 130-160 Stroke (mm): 1100-2500 Max. payload (kg): Horizontal 27-108/Vertical 5.4-36	200V power supply for Large sliders	Body width (mm): 80-130 Max. Stroke (mm) One side: 10-20 Max. Grip force (N) One side: 28-360
EC-RTC□	EC-ST15(ME)	EC-S□(X)	PSA-200	EC-GRB□

**Dust/Splash-proof specification**

**Cleanroom specification**

Rod type & Radial Cylinder®	Slider Type	Slider Type		
Body width (mm): 60-70 Stroke (mm): 50-300 Maximum payload (kg): Horizontal 80/Vertical 19	Body width (mm): 60-70 Stroke (mm): 50-800 Maximum payload (kg): Horizontal 51/Vertical 19	Body width (mm): 40-70 Stroke (mm): 50-350 Maximum payload (kg): Horizontal 51/Vertical 19	Body width (mm): 60-80 Stroke (mm): 50-800 Maximum payload (kg): Horizontal 51/Vertical 25	Body width (mm): 100, 120 Stroke (mm): 50-800 Maximum payload (kg): Horizontal 62/Vertical 13.5
EC-R□W	EC-S□D EC-S□W	EC-(D)S□□CR	EC-(D)S□□AHCR	EC-(D)WS□□CR
Body width (mm): 60-70 Stroke (mm): 65-315 Maximum payload (kg): Horizontal 80/Vertical 19				
EC-RR□W				

**Field network connection unit**

**Controllers**

Field network compatible remote I/O



REC

Teaching pendant with dedicated power supply unit



TB-03

TB-03E

Built-in Digital Speed Controller



Wired Teaching Controller



TBD-1

Wireless Teaching Controller



TBD-1WL

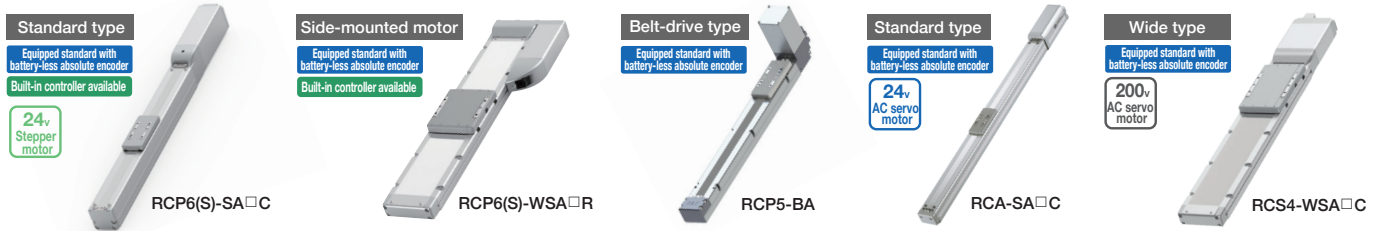
# ROBO Cylinder®

These affordable, highly precise and high rigidity actuators have 1/5th the running cost of a pneumatic system.

ROBO Cylinder is high-performance electric actuator equipped with a ball screw, linear guide, and servo motor. These next-generation actuator has multi-point positioning capability as well as the ability to change speed and acceleration, unlike anything seen with air cylinders.

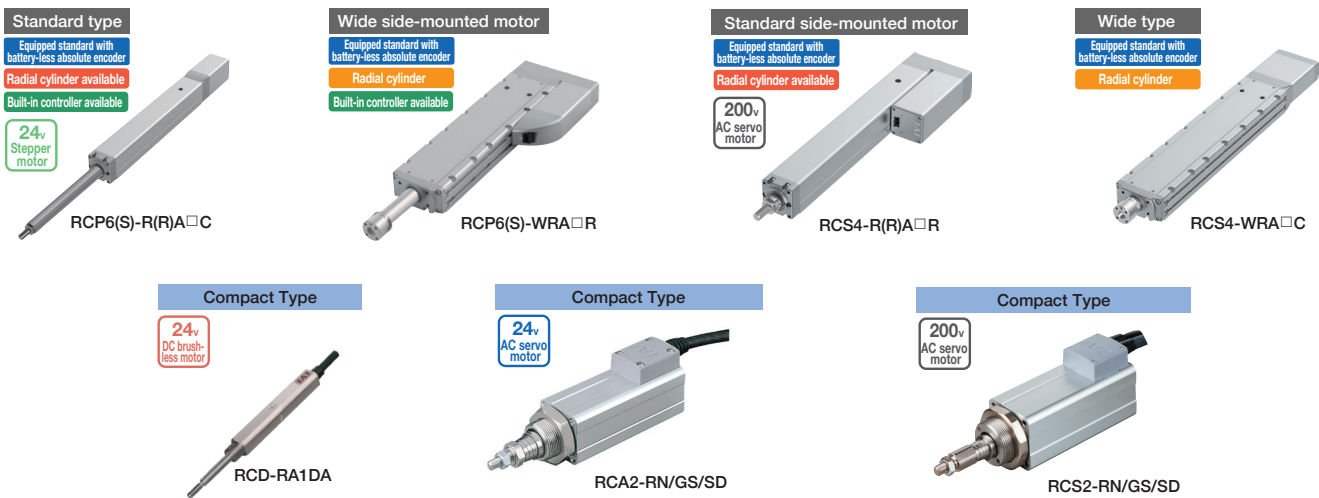
## Slider Type

Body width (mm): 22-160, Stroke (mm): 25-2600 • Maximum payload (kg): Horizontal 100 / Vertical 55



## Rod Type

Body width (mm): 12-200, Stroke (mm): 10-800 • Maximum payload (kg): Horizontal 300 / Vertical 150 (Except High payload)



## Servo Press

Body width (mm): 40-200,  
Stroke (mm): 100-520  
Max. pushing force (N): 50000

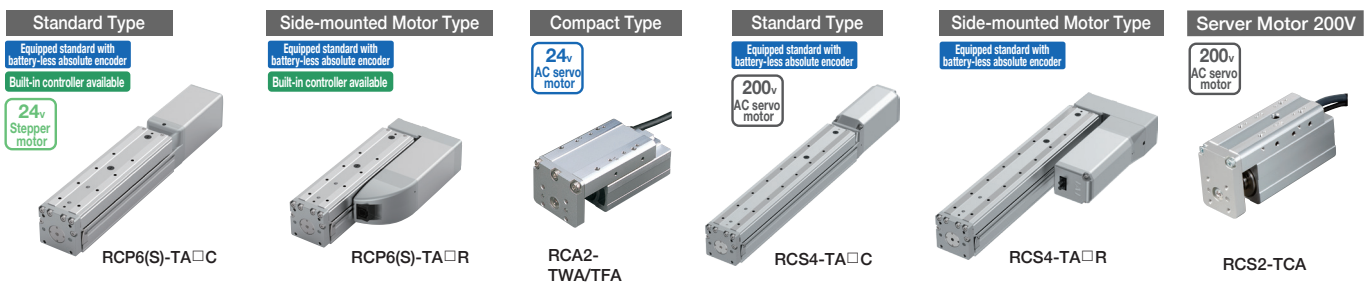


## Pulse Press

Max stroke (mm): 310-320,  
Max. push force (N): 300-2000

## Table Type

Body width (mm): 30-80, Stroke (mm): 20-390 • Max. payload (kg): horizontal 30 / vertical 24.



# ROBO Cylinder®

These affordable, highly precise and high rigidity actuators have 1/5th the running cost of a pneumatic system.

## Rotary type

Body width (mm): 50-180, Maximum speed (degree/s): 266-1200

### Hollow Type

Equipped standard with battery-less absolute encoder

24v Stepper motor



RCP6-RTFML

### Flat Type



RCP2-RTC

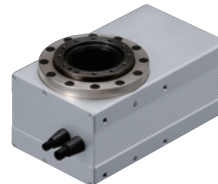
### Vertical Type



RCP2-RTB

### Rotary Type

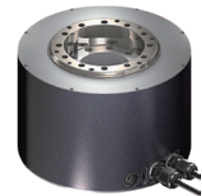
200v AC servo motor



RCS2-RTC□L

### Direct Drive Motor

Body width (mm): 180  
Max. speed (degree/s): 1800



DDA-LT/LH

## Gripper type

Stroke (mm): 2-finger 4-260, 3-finger 10, 14 (degree): 2-finger 180, 3-finger 19

### Solenoid Type



GRM-S/M EG (Outer diameter grip)  
S/M IG (Inner diameter grip)

### Ultra Compact Slide Type

24v DC brushless motor



RCD-GRSNA

### Long Stroke: Coupling Type

Equipped standard with battery-less absolute encoder

Built-in controller available

24v Stepper motor



RCP6(S)-GRST□C

### Long Stroke: Side-mounted Motor Type

Equipped standard with battery-less absolute encoder

Built-in controller available



RCP6(S)-GRST□R

### Thin Slide Type

Equipped standard with battery-less absolute encoder

24v Stepper motor



RCP6-GRT

### Slide Type

24v Stepper motor



RCP4-GRSLL

### Lever Type



RCP4-GRL

### 3-finger Slide Type



RCP2-GR3S

### 3-finger Lever Type



RCP2-GR3L

### Rotary Chuck Type

Rotation capability with the rotary and gripping capability with the gripper are integrated into one unit.

24v Stepper motor



RCP6-RTCK

## Others

### Stopper Cylinder

Max. work piece weight: 25~150kg  
Stroke (mm): 20-30

24v Stepper motor



RCP4-ST

### Wrist Unit

Body width (mm): S/136.5, M/136.5  
Max. payload (kg): S/1, M/2

Equipped standard with battery-less absolute

24v Stepper motor



WU-S/M

# Single-axis Robot

## Slider Type

### High Accuracy Type

200V  
AC servo  
motor



ISB/ISPB

Equipped standard with battery-less absolute encoder



New large type:  
IS(P)B-WXM(X)-750

## High Rigidity Type (Iron-base)



SSPA

## Ball Screw Type (Standard)



ISA/ISPA

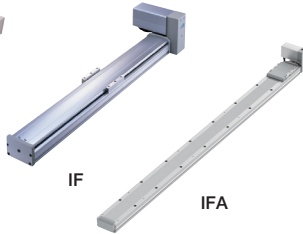
## Simple Dust-proof Type

Equipped standard with battery-less absolute encoder



ISDB/ISPDB

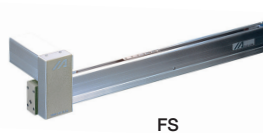
## Belt-drive, High Rigidity Type



IF

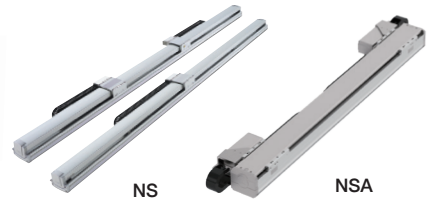
IFA

## Belt-drive, Slim Type



FS

## Nut-rotation Type



NS

NSA

# Cleanroom Specification

## Slider Type

Equipped standard with battery-less absolute encoder  
Built-in controller available



RCP6(S)CR-SA□C

## Rod Type



RCA2CR-GS

## Gripper Type

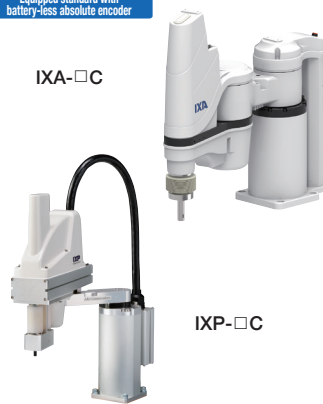


RCP2CR-GRM

## SCARA Robot

Equipped standard with battery-less absolute encoder

IXA-□C



IXP-□C

## Rotary Type



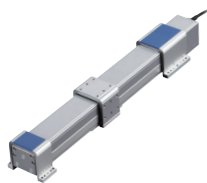
DDACR



RCP2CR-RT

# Dust/Splash-proof Specification

## Slider Type



RCP4W-SA□C

## Rod Type

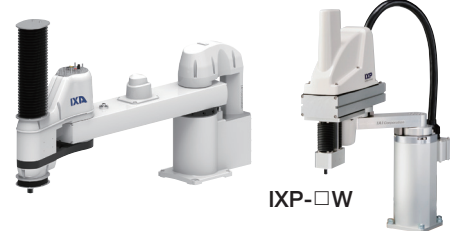
Equipped standard with battery-less absolute encoder  
Radial cylinder available  
Built-in controller available

RCP6(S)W-R(R)A□C



## SCARA Robot

Equipped standard with battery-less absolute encoder



IXA-4NH□□□□

IXP-□W

## Gripper Type



RCP2W-GRM

## Rotary Type



DDW



RCP2W-RT



IXA-4NSW□□□□

# SCARA Robot

## IXA

Arm length (mm): 180-1200  
 Standard cycle time (S): 0.26-0.61  
 Max. payload (kg): 1-50

Standard type

High-speed type

Equipped standard with battery-less absolute encoder

200v AC servo motor



IXA-NNN



IXA-NSN

Long arm type

Equipped standard with battery-less absolute encoder



IXA-NHN

## IXP (Power Con type)

Arm length (mm): 180-650  
 Max. payload (kg): 6

Standard type

Equipped standard with battery-less absolute encoder

24v Stepper motor



IXP-3N

# Table Top Robot

Selectable from stepper motors or servo motors.  
 Body width (mm): 401-755.8 XY axis stroke (mm): 150-500

24v Stepper motor

24v AC servo motor

A-type [movable workpiece type]

3-axis type

Equipped standard with battery-less absolute encoder

TTA-A3



C-type [fixed workpiece type]

3-axis type

Equipped standard with battery-less absolute encoder

TTA-C3



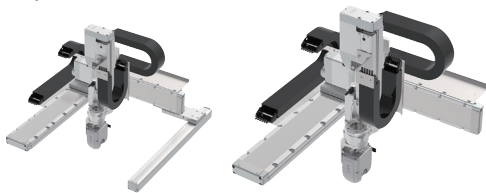
# Cartesian Robot

## CRS 6-axis Type Robot

CRS-XBA/CRS-XGA/CRS-XBB/CRS-XGB

Equipped standard with battery-less absolute encoder

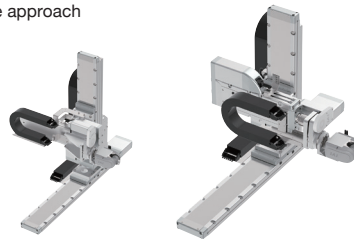
Gantry combination



CRS-XACY/CRS-XADY/CRS-XZEY

Equipped standard with battery-less absolute encoder

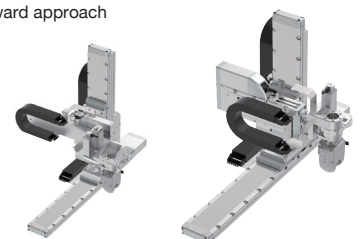
Side approach



CRS-XACY/CRS-XADY/CRS-XZEY

Equipped standard with battery-less absolute encoder

Downward approach

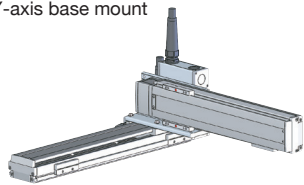


2-axis configuration

XYB type

Equipped standard with battery-less absolute encoder

Y-axis base mount

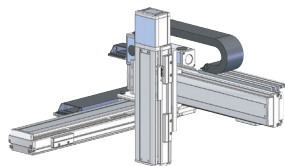


3-axis configuration

XYB+Z base mount

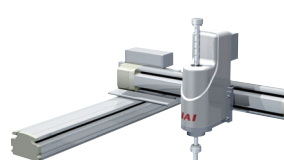
Equipped standard with battery-less absolute encoder

Y-axis base mount  
Z-axis base mount



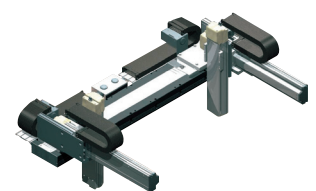
4-axis configuration

ZR axes integrated type



6-axis configuration

Z-axis base mount type (Z-axis slider movable)



Realizes high rigidity by ingenious mechanical design. Number of axes: 2-6 Max. payload (kg): 65

# Controller Select an operational pattern based on the purpose of use.

## IAI's controller series R-unit

This series of unit-connecting controllers allows you to freely select and combine connected actuators and control methods.

**RCON** Max. 16 axes  
**Positioner Type**



**REC** Max. 16 axes  
**ELECYLINDER Drive Unit**



**RSEL** Max. 8 axes  
**Program Type**



### Positioner type : Single - axis controller

<Small> Position controller  
 Max. dimensions: W28mm x D69mm x H80mm



PCON-CYB ACON-CYB DCON-CYB

Position controller DC24V/AC100V/AC200V types  
 Max. dimensions: W35mm x D69.1mm x H190mm



PCON-CB ACON-CB DCON-CB

Max. dimensions:  
 W49mm x D116mm x H158mm



SCON-CAL

Max. dimensions:  
 W72mm x D121mm x H194mm



SCON-CB

### Program Type : Multi-axis controller

Max. dimensions:  
 W100mm x  
 D126mm x  
 H177~195mm



SSEL

Max. dimensions:  
 W130mm x  
 D 125mm x  
 H 195mm



MSEL

Max. dimensions:  
 W304mm~372mm x  
 D125.3mm x H195mm



XSEL

### Touch Panel Teaching Pendant

Position controller /  
 Program controller  
 common use  
 Max. dimensions:  
 W190mm x D25mm x  
 H155mm



TB-02

Position controller /  
 Program controller  
 common use  
 Max. dimensions:  
 W200mm x D34mm x  
 H155mm



TB-03

Teaching pendant  
 with dedicated for EC  
 power supply unit  
 Max size: W250mm x  
 D57.4mm x H164.4mm



TB-03E/TB-02E

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