IAI ROBOT LINEUP GUIDE

A simplified guide that summarizes the IAI Products Lineup. It presents the main products categorized by actuator type.

Newest Additions to the ELECYLINDER Series
Small, High rigidity, Side-mounted motor, Splash-proof type

Coming soon!

Available now!

ELECYLINDER®

Rotary Type
Stopper Type
Belt Driven Type

www.intelligentactuator.com
Elecyylinder operation is extremely simple

**Advancing into a NEW ERA switching Air to ELECYLINDER**

Elecyylinder can be operated only by ON/OFF signal like solenoid valve. It's easy to operate for beginners. You can adjust A(Acceleration), V(Velocity), D(Deceleration) individually by input percentage. It can start / stop at high speed smoothly. Cycle time and trouble recovery time will be reduced.

**Slider Type**
- Body width (mm): 63–73
- Stroke (mm): 50–500
- Maximum payload (kg): Horizontal 51/Vertical 19

**High Rigidity Slider Type**
- Body width (mm): 63–75
- Stroke (mm): 50–800
- Maximum payload (kg): Horizontal 51/Vertical 25

**Rod Type**
- Body width (mm): 63–73
- Stroke (mm): 50–300
- Maximum payload (kg): Horizontal 80/Vertical 19

**Radial Cylinder**
- Body width (mm): 63–73
- Stroke (mm): 65–315
- Maximum payload (kg): Horizontal 80/Vertical 19

**Table Type**
- Body width (mm): 78
- Stroke (mm): 30, 50
- Maximum payload (kg): Horizontal 8/Vertical 2.5

**Rod Type with Guide**
- Body width (mm): 55–76
- Stroke (mm): 30, 50
- Maximum payload (kg): Horizontal 8/Vertical 2.5

**Waterproof Specification (Rod Type)**
- Body width (mm): 63–73
- Stroke (mm): 50–300
- Maximum payload (kg): Horizontal 80/Vertical 19

**High Rigidity Radial Cylinder**
- Body width (mm): 63–75
- Stroke (mm): 50–500
- Maximum payload (kg): Horizontal 51/Vertical 25

**Newest Additions to the Series**

- **Small type (Radial Cylinder)**
  - EC-RR3
  - EC-RR4

- **Small type**
  - EC-S3
  - EC-S4

- **High rigidity (Radial Cylinder)**
  - EC-RR6 AH
  - EC-RR7 AH

- **High rigidity (Slider type)**
  - EC-S6 AH
  - EC-S7 AH

- **Splash-proof type (Radial Cylinder)**
  - EC-RR6 W
  - EC-RR7 W

- **Side-mounted motor**
  - EC-S6 R
  - EC-S7 R

- **Side-mounted motor**
  - EC-RR6 W
  - EC-RR7 W
  - EC-RR6 AH
  - EC-RR7 AH
ROBO Cylinder is high-performance electric actuator equipped with a ball screw, linear guide, and servo motor. These next-generation actuators have multi-point positioning capability as well as the ability to change speed and acceleration, unlike anything seen with air cylinder.

**Slider Type**

Suitable for moving something horizontally and for a long distance.

- **Standard Type**
  - Equipped with Battery-less Absolute Encoder
  - Built-in controller available

- **Wide Type**
  - Equipped with Battery-less Absolute Encoder
  - Built-in controller available

- **Belt Type**
  - Equipped with Battery-less Absolute Encoder
  - Built-in controller available

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**Rod Type**

Please choose this type when moving something vertically or carrying something with chuck etc. It's also suitable for push force or holding a workpiece.

- **Standard Type**
  - Equipped with Battery-less Absolute Encoder
  - Radial Cylinder® is available

- **Wide Type**
  - Equipped with Battery-less Absolute Encoder
  - Radial Cylinder® is available

- **Belt Type**
  - Equipped with Battery-less Absolute Encoder
  - Radial Cylinder® is available

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**Servo Press**

Rod type actuators equipped with load cell on rod tip.

You can realize the high-precision press.

- **Standard Type**
  - Equipped with Battery-less Absolute Encoder
  - Radial Cylinder® is available

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**Table Type**

Use this type when moving a workpiece in a vertical direction or if a moment load is applied.

- **Standard Type**
  - Equipped with Battery-less Absolute Encoder

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**Body width (mm): 22~160 Stroke (mm): 25~2600 Maximum payload (kg): Horizontal 100 / Vertical 55**

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

**Body width (mm): 40~200 Stroke (mm): 100~520 Maximum payload (kg): Horizontal 100 / Vertical 50 (Except High payload)**

**Body width (mm): 22~160 Stroke (mm): 25~2600 Maximum payload (kg): Horizontal 100 / Vertical 55**

**Body width (mm): 32~95 Stroke (mm): 20~390 Maximum payload (kg): Horizontal 30 / Vertical 24**
ROBO Cylinder®  
High precision, high rigidity, and low cost with only one-fifth of the running cost of air cylinders

**Rotary Type**

Use this type when changing the direction of the workpiece or for precise positioning as an index.

Body width (mm): 45–233  Maximum speed (degree/s): 266–1200

- **Hollow Type**
  - Body width (mm): 106.5–108  Stroke (mm): 20–30
  - RCP4-ST

- **Flat Type**
  - Body width (mm): 180  Maximum speed (degree/s): 1800
  - DDA-LT/LH

- **Vertical Type**
  - Body width (mm): 45–233  Maximum speed (degree/s): 266–1200

- **Rotary Type**
  - Body width (mm): 106.5–108  Stroke (mm): 20–30

**Gripper Type**

Suitable for gripping and lifting up the work.

Stroke (mm): 2-finger 4–260, 3-finger 10,14,38

- **Solenoid Type**
  - Body width (mm): S/122, M/138  Maximum payload (kg): S/3, M/6
  - RCP6-GRS

- **Ultra Compact Slide Type**
  - Body width (mm): S/136.5, M/136.5  Maximum payload (kg): S/1, M/2
  - RCP6-GRSNA

- **Long Stroke : Coupling Type**
  - Body width (mm): S/136.5, M/136.5  Maximum payload (kg): S/1, M/2
  - RCP6(S)-GRST

- **Long stroke: side-mounted Motor Type**
  - Body width (mm): S/136.5, M/136.5  Maximum payload (kg): S/1, M/2
  - RCP6(S)-GRST

- **Thin Slide Type**
  - Body width (mm): S/136.5, M/136.5  Maximum payload (kg): S/1, M/2
  - RCP6-GRS

**Rotary Chuck Type**

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

- **GRM-S/M EG (Outer diameter grip)**
  - S/M IG (Inner diameter grip)
  - Body width (mm): 106.5–108  Stroke (mm): 20–30
  - RCP4-GRL

**Others**

- **Stopper Cylinder**
  - Body width (mm): 106.5–108  Stroke (mm): 20–30
  - RCP4-ST

- **ZR Unit (Vertical/Rotation Integrated Type)**
  - Body width (mm): S/136.5, M/136.5  Maximum payload (kg): S/1, M/2
  - ZR-S/M

- **Wrist Unit**
  - Body width (mm): S/136.5, M/136.5  Maximum payload (kg): S/1, M/2
  - WU-S/M
The single-axis robot is a high-precision positioning system with a built-in base, linear guide, ball screw and servo motor and can be used to help reduce the cost by minimizing the designing and adjusting time.

Dedicated cleanroom types conforming to cleanliness class 10.

Dustproof/Splash-proof Specification

These actuators handle environments with extreme dust or water splashes.
**LSA series Linear Servo Actuators**

Suitable for long stroke with high-speed and high acceleration/deceleration.

- **LSA-S**
- **LSAS-N**
- **LSA-W**

**Specifications**
- Body width (mm): 60–210
- Stroke (mm): 40–4155
- Maximum payload (kg): 120

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**SCARA Robot**

SCARA Robot suitable for transferring lightweight work with high-speed.

- **IXA**
  - Arm length (mm): 300 to 600
  - Standard cycle time (S): 0.26 to 0.38
  - Maximum payload (kg): 3 to 12

- **IXP (Power Con Type)**
  - Arm length (mm): 180–650
  - Maximum payload (kg): 6

- **IX**
  - Arm length (mm): 120–1200
  - Maximum payload (kg): 20

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**Table Top Robot**

Suitable for cell productions, R&D applications, and more.

- **TTA-A2**
- **TTA-A3**
- **TTA-A4**
- **TTA-C2**
- **TTA-C3**
- **TTA-C4**

You can choose from pulse motor and servo motor specification.

- **A-type (Gate Type)**
  - 2-axis Specification
  - 3-axis Specification
  - 4-axis Specification

- **C-type (Cantilever Type)**
  - 2-axis Specification
  - 3-axis Specification
  - 4-axis Specification

**Specifications**
- Body width (mm): 401–755.8
- XY axis Stroke (mm): 150–500
Many variation are available by combining single-axis robots.

**2-axis Configuration**

- **XYB**
  - Y-axis Base Mount
- **XYS**
  - Y-axis Slider Mount
- **XZ**
  - Z-axis Upright Mount
- **YSZ**
  - Z-axis Slider Mount
- **YZB**
  - Z-axis Base Mount

**3-axis Configuration**

- **XYB+ZB**
  - Y-axis Base Mount
  - Z-axis Base Mount
- **XYB+ZS**
  - Y-axis Base Mount
  - Z-axis Slider Mount
- **XZ+YS**
  - Z-axis Upright Mount
  - Y-axis Slider Mount
- **XYG+ZS**
  - Y-axis Horizontal Gantry
  - Z-axis Slider Mount

**4-axis Configuration**

- **XMYB**
  - X-axis Multi-slider
  - Y-axis Base Mount
- **XMYB-ZRB**
  - Y-axis Side Base Mount
  - ZR-axis Base Mount

**6-axis Configuration**

- **XMYB+ZB**
  - X-axis Multi-slider
  - Y-axis Side Base Mount
  - Z-axis Base Mount

**High-speed Cartesian Type**

- **4-axis Cartesian with Rotational Axis Specification**
- **4-axis Cartesian + Pick & Rotate Specification**
- **4-axis Cartesian Specification**
**Controller**

Select the operational pattern based on the purpose of use.

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<th>Multi Axes</th>
<th>CON (Position to Position)</th>
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<td></td>
<td>(1~2 axes)</td>
<td>SSEL (2 axes)</td>
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</tbody>
</table>

**Note1:** SSEL (1~2 axes) has Positioner Mode.  
**Note2:** Additional SCON-CB RC Option required per axis.  
**Note3:** PSEL (1~2 axes) only supports RCP2 / RCP3

### FIELD NETWORKS

- EtherCAT
- DeviceNet
- CompoNet
- Profinet
- CC-Link
- EtherCAT
- MECHATROLINK
- SSCNETIII

**Power Supply**

Low-cost DC24V power supply ideal for powering actuators

- **PS-24**
  - Safely accelerate an output actuator at a maximum momentary current of 17A.
  - Up to five units can be operated in parallel:
  - The load factor detection function lets you monitor the load condition of the unit.
  - Power source: Universal AC100V ~ 230V
  - Continuous rated output: 240W / 330W
  - Peak output: 408W (17A)
  - Compact size, smaller than PS-24

**Available now!**

- **PSA-24/24L**

**Teaching Pendants**

Programming points have never been easier Compatible with Safety Category

- **Touch Panel Teaching Pendant for Controllers TB-02**
- **Touch Panel Teaching Pendant with wireless data setting function for EC TB-03**

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