

Standard Type

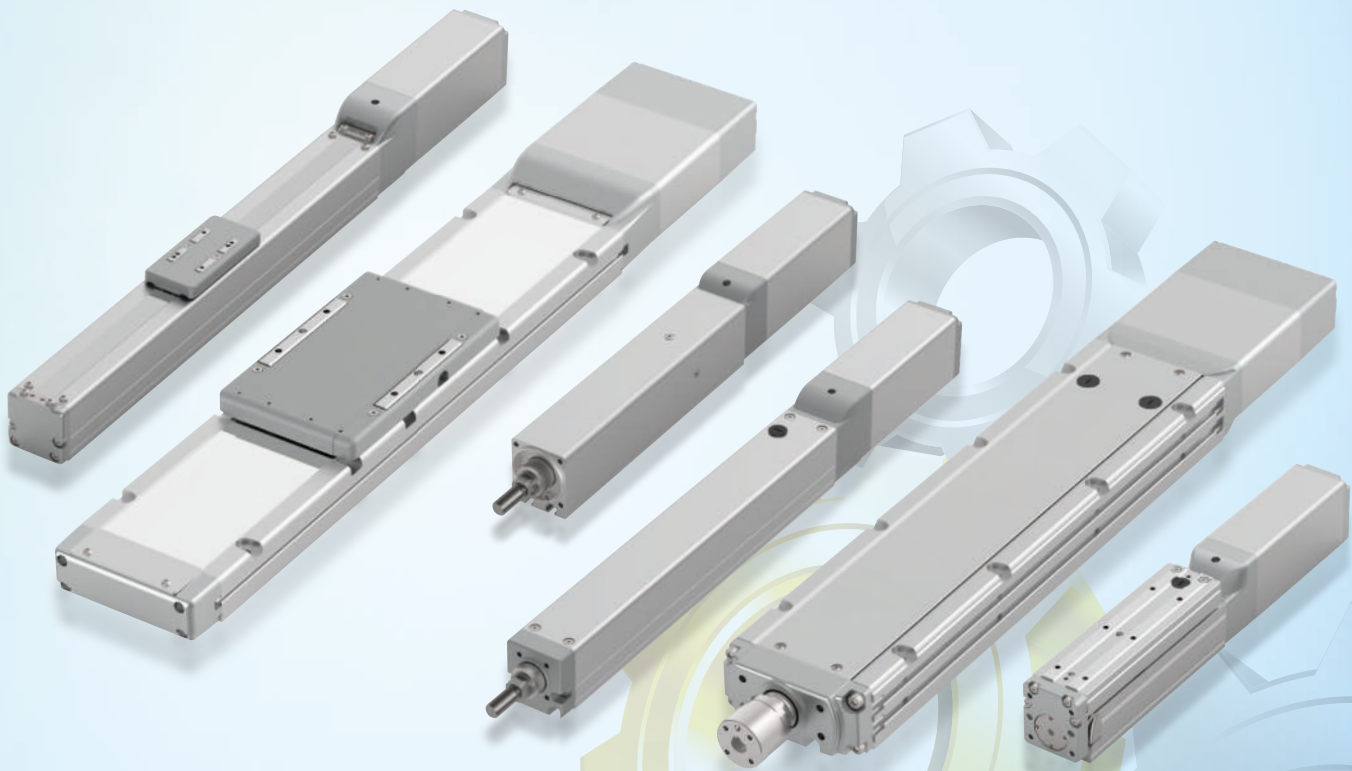
Cleanroom Specification

Dust/Splash-Proof Specification

Controller for ROBO Cylinder®

RCP6(S)
RCP6(S)CR
RCP6(S)W

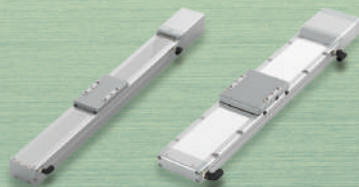
PCON-CB/CFB



**New Controller
Series Additions**



New Cleanroom Specification Series Additions



New Dust/Splash-Proof Specification Series Additions



IAI's Next Generation ROBO Cylinder®: RCP6

You Can Select the Product That Best Suits Your Needs from an Abundant Lineup of 156 Models*.

*Total by Types, Separate or Built-In Controller, and Specifications

1 Equipped with High-resolution Battery-less Absolute Encoder as Standard.

The advantages of an actuator with battery-less absolute encoder

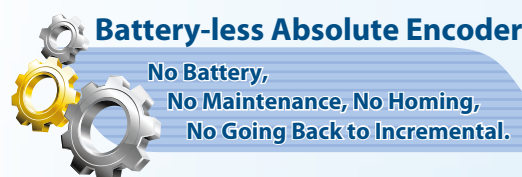
No battery maintenance is required since there is no battery. Since home-return operation is not required at start up or after emergency stop or malfunction, this reduces your operation time, resulting in reduced production costs. Price is the same as the conventional incremental encoders.

The advantages of using an absolute encoder.

1. With an absolute encoder, home-return is not required.
2. No external home sensor is required since home-return is not necessary.
3. Removal of items being worked on is not necessary, even after an emergency stop.
4. The troublesome creation of home-return programs is not necessary even when stopping in the complex inside of a machine.

The advantages of battery-less

1. No battery maintenance required
2. No installation space for battery required



Built-in position memory system

2 Improved Positioning Repeatability

With the improvement of the accurate processing technology of rolled ball screws and the thread grooves of nuts, a significantly higher precision compared to the previous ROBO Cylinder's positioning repeatability ($\pm 20\text{ }\mu\text{m}$) has been achieved.

Standard specification $\pm 10\text{ }\mu\text{m}$

High-precision specification $\pm 5\text{ }\mu\text{m}$ (Available only for RCP6(S)-SA/WSA,)
RCP6(S)CR-SA/WSA

*1"=0.001mm

3 PowerCON® Compatible

Compatible with PowerCON® which is equipped with a high-output driver. The output of the stepper motor has increased by about 50% due to the use of PowerCON. Shortened cycle times were achieved through increased maximum speeds, which contributes to improved equipment productivity.

4 The Built-in Controller Type Is Available for All Models.

Standard/separate controller type or built-in controller type can be selected for all models.

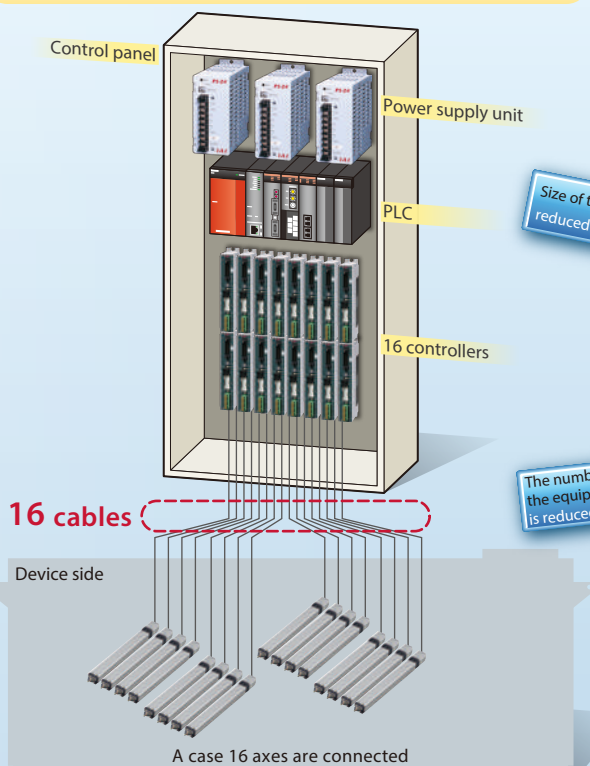
The advantages of a built-in controller type.

- ▶ Smaller control panel.
- ▶ Simple wiring.
- ▶ Less maintenance parts necessary because wires are being shared.

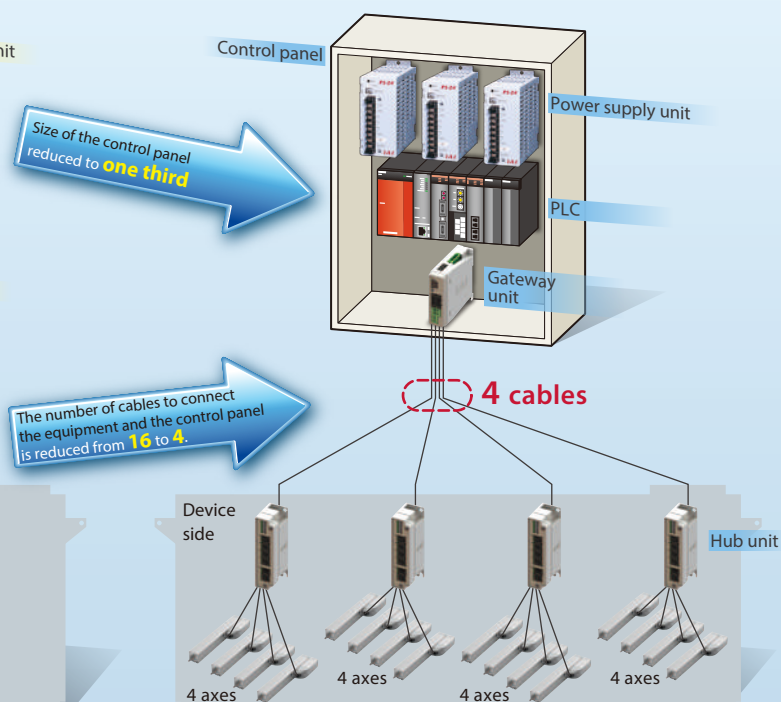
By using the gateway unit and the hub unit(s), it is possible to reduce the size of the control panel and a number of cables.

*Please refer to P.8 for more information regarding the gateway unit and the hub unit.

Control Panel for Standard Controller



Control Panel for the RCP6S Built-in Controller Actuator

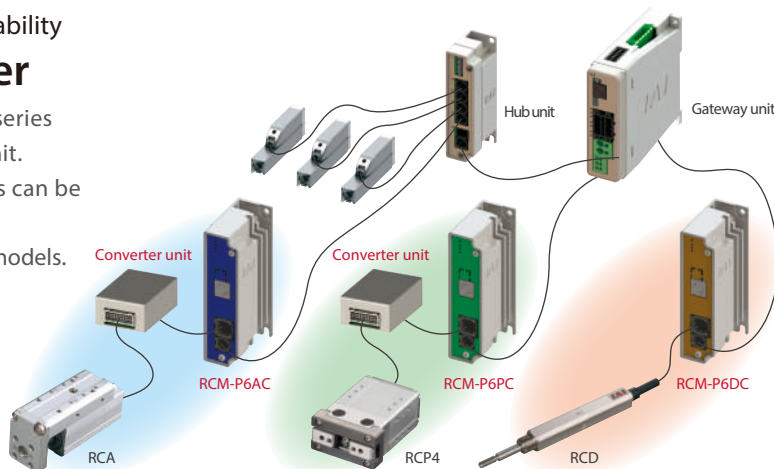


[Notes] Maximum cable length between the gateway unit and RCP6S is 20m.
If there is a hub unit in between, the maximum combined cable length is still 20m.
The cable length from the gateway unit to the hub unit needs to be 10m or less.

5 Gateway unit and hub unit connection capability RCP6S Gateway Controller

This controller can connect RCP, RCA, and RCD series actuators to an RCP6S gateway unit and hub unit. Mini ROBO Cylinders and gripper type actuators can be added to the RCP6S network.

Please see P.282 for information on connectable models.



6 Cleanroom Specification Is Now Available

Cleanroom specification is now available. Eight slider types, including the wide slider, are available in total. Ideal for use in special environments such as cleanroom.

Clean
Class
10

Clean
Class
2.5

There are 2 standards that represent the cleanliness.

1. Fed.Std.209D Standard

Displays the number of particles in 1ft³ with reference to particles of 0.5 μ m or more.
<Display method> Class 1, 10, 100, 1,000, 10,000, 100,000

2. JIS B9920 (ISO 14644-1) Standard

The number of particles 0.1 μ m or larger in 1m³ is expressed in exponents when expressed in power of 10.



7 Dust/Splash-Proof Specification Is Now Available

Dust-proof/splash-proof specification is now available. Twenty-four rod types or 48 models, including the Radial Cylinder and Wide Radial Cylinder, are available in total. Can be used for equipment that comes in contact with water.

IP
65



Protection Degree Display

IP

First Indicative Number

Protection against human bodies and solid foreign matter

Second Indicative Number

Protection against ingress of water

IP65	Solid foreign matter	(Summary) Dust-resistant type* Total protection of the interior from dust ingress.
	Water	(Summary) Protection from water jets.* No harmful effects from direct water jets coming from any direction.

* IEC 60529 / JIS C 0920