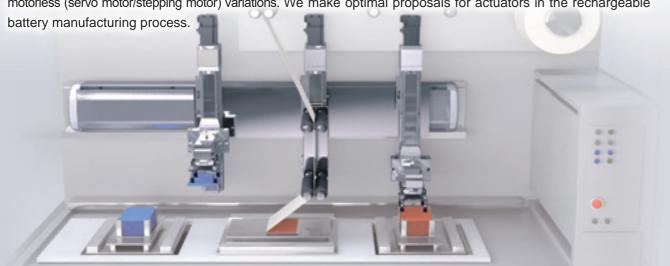
## Contributes to "Facilities that never stop"

With the progress of rechargeable and next-generation battery development, we have responded to the demand for components with improved dry environmental performance. These products provide production stability in the manufacturing process, meeting the needs of rechargeable battery manufacturing, from electrode production to packaging.



## Contributes to the Electric Motion Systemization of production facilities

In addition to pneumatic components and control valves, the P4 Series also supports electric actuators for multi-model production and shockless transport. We offer a wide range of motor-equipped (stepping motor) and motorless (servo motor/stepping motor) variations. We make optimal proposals for actuators in the rechargeable



## and "stable operation" for improved productivity!



#### **Configuration parts material limitations**

Limited use of inappropriate material and surface treatment in the rechargeable battery manufacturing process. Product failure of rechargeable batteries is reduced. \*Excluding motor, wiring, and connector















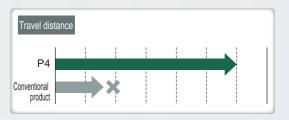
#### Long service life even in -70°C dew point environments

Ultra-dry environment compatible grease is used. Retains the smooth operation of the sliding part for long periods, even in dry environments.



### Contributing to a system that never stops

Uses special grease that supports low dew points and high frequency. Contributes to stable operation of equipment.





## Suppresses dust generation of metal wear powder

Equipped with a local exhaust function (vacuum treatment port). Prevents contamination to the electrodes or cell by not leaking the metal wear powder outside.

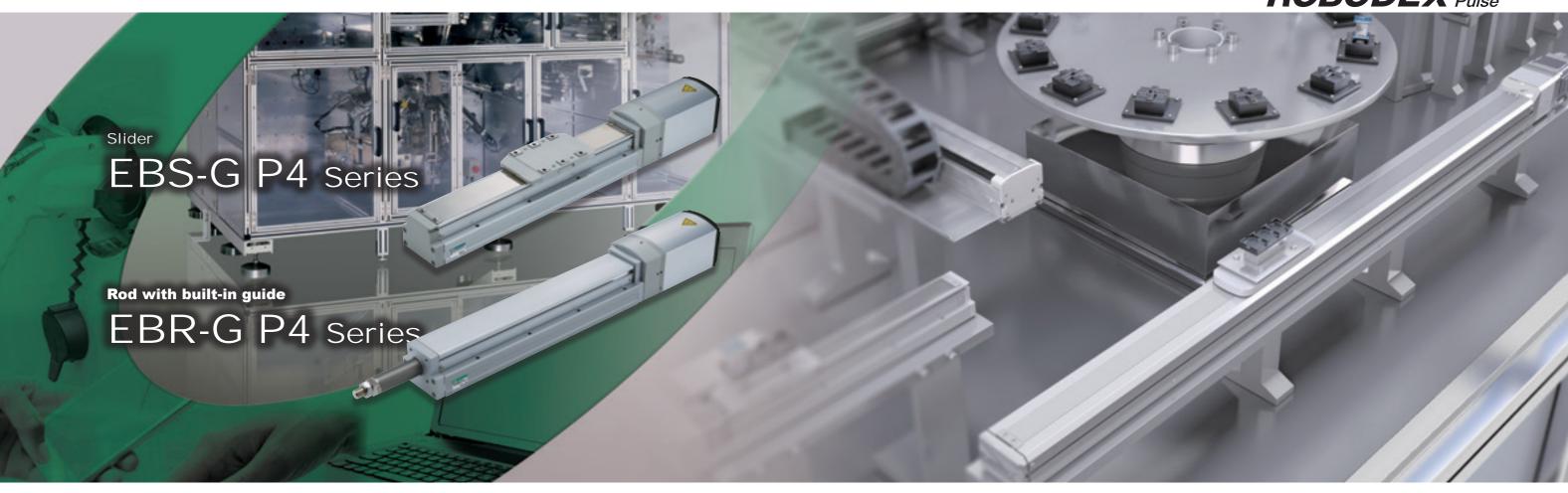


Slider ·····EBS-G P4·····	1

Rod with built-in guide ······· EBR-G P4 ····· 43

Controller ······	·ECG ······ 8	35

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### Can be used in any process

#### Anti-rust treated

Slider EBS supports anti-rust treatment of the slider part as an option. It can suppress the occurrence of corrosion and rust and improve the reliability of equipment.

#### **Prevention of contamination**

#### **Compatible with vacuum treatment fittings**

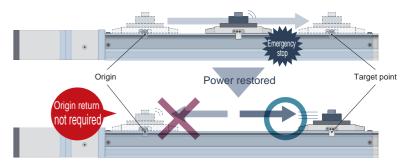
Suction port can be optionally built-in. Suctioning from the port prevents the particles of the movable part of the electric actuator from flowing out. Be rest assured by suppressing contamination of the equipment.



### Shorter equipment stop times

#### Battery-less absolute encoders can be selected

The absolute encoder retains present position information without the use of a battery. The system does not need to return to origin when the power is turned ON, and there is no need to install an origin sensor. This allows quick recovery from an emergency stop or power outage. Because it uses no battery, there is no need to replace the encoder battery.



#### **Expanded selection**

#### Also supports motorless specifications (servo motors/stepper motors)

Each model uses a common body and can also be driven at the same size using a servo motor. This provides even greater control for your preferred motor.

#### [Servo motor compatible manufacturer]

- Mitsubishi Electric Corp.
  Fuji Electric Co., Ltd.
- Delta Electronics Co., Ltd. FANUC CORP.
- Sanyo Denki Co., Ltd. DENSO WAVE INCORPORATED
- ●YASKAWA Electric Corp. ●Bosch Rexroth AG
- Keyence Corp.
   Rockwell Automation, Inc.
- Panasonic Corp. SIEMENS AG
- OMRON Corp.

#### [Manufacturers supporting stepper motors]

- Oriental Motor Co., Ltd.
- MinebeaMitsumi Incorporated
- Dyadic Systems Co.,Ltd.

\*Refer to separate catalog CB-055A.

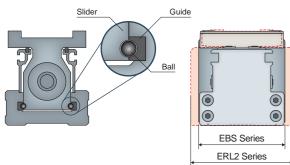


## **High speed transport**

## **Smaller equipment footprint**

#### **Compact body with high rigidity**

An outer rail is used for the guide which supports loads. The wide guide is integrated with the body to keep the system compact yet provide high rigidity.



		ERL2-60	EBS-05
Body width		64 mm	54 mm
Static	MP	25.7 N⋅m	103 N⋅m
allowable	MY	25.7 N⋅m	103 N⋅m
moment	MR	58 N⋅m	144 N∙m

### Easy maintenance

#### **Equipped with a grease lubrication port**

The product comes equipped with a lubrication port on both sides to allow direct lubrication from the exterior. Both the guide and ball screw can be maintained simply by lubricating from a single location, without disassembling the body.



## ROBODEX Pulse

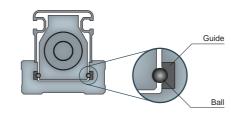


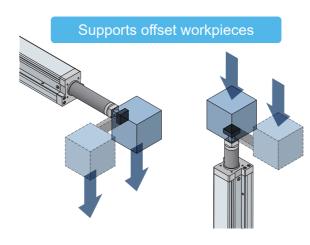
## For press fitting and hoisting

## **Reduces need for additional guides**

#### Rod with built-in guide

Contains the same guide as the slider EBS. Provides a strong structure even for offset workpieces. It also provides a long stroke even greater than that of conventional products.

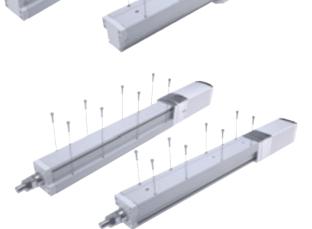




#### Reduced installation time

## Mounting holes provided on top and bottom of product

The product structure allows direct installation from the top or bottom, without disassembly. This significantly reduces work time, especially when installing from the top.

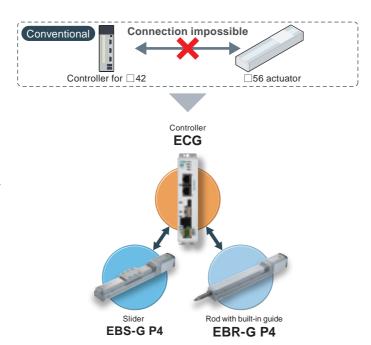




# Reduced initial work hours and stock

## Novel functions that support a wide range of motor sizes

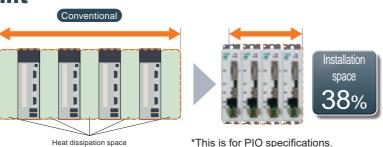
The same controller operates with actuators of different sizes and models. Equipped with an automatic recognition function that reads actuator information, for less work during initial setting. Further, with a common controller, work hours for selection and ordering can be reduced as well as inventory.



### **Reduced controller footprint**

#### Compact, allowing adjacent installation

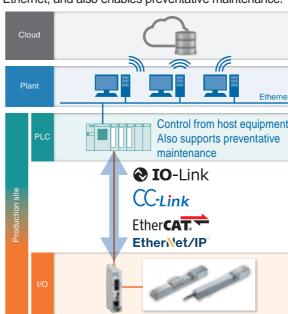
The optimized design eliminates the need for heat dissipation space at the sides. This allows controllers to be installed next to one another.



#### Supports IoT

#### **Compatible with all types of networks**

Our product is compatible with all types of industrial networks. This allows control from host equipment over Ethernet, and also enables preventative maintenance.



#### **Abundant wiring configurations**

EtherNet/IP built-in 2-port connectors, and supports a wide range of line, star and ring wiring.

#### Reduces adjustment time

#### **Common configuration**

tool "S-Tools" Easy



\*Depending on your smartphone environment it may not be displayed correctly.

**CKD** YouTube channel

Inherits the operational feel of the popular AX-Tools software for ABSODEX. S-Tools can be downloaded from our website for free.

