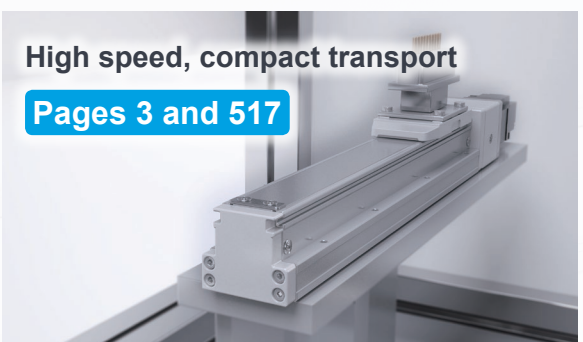


Compatible with all device applications and compact and efficient.

That is CKD's new approach.

High speed, compact transport

Pages 3 and 517



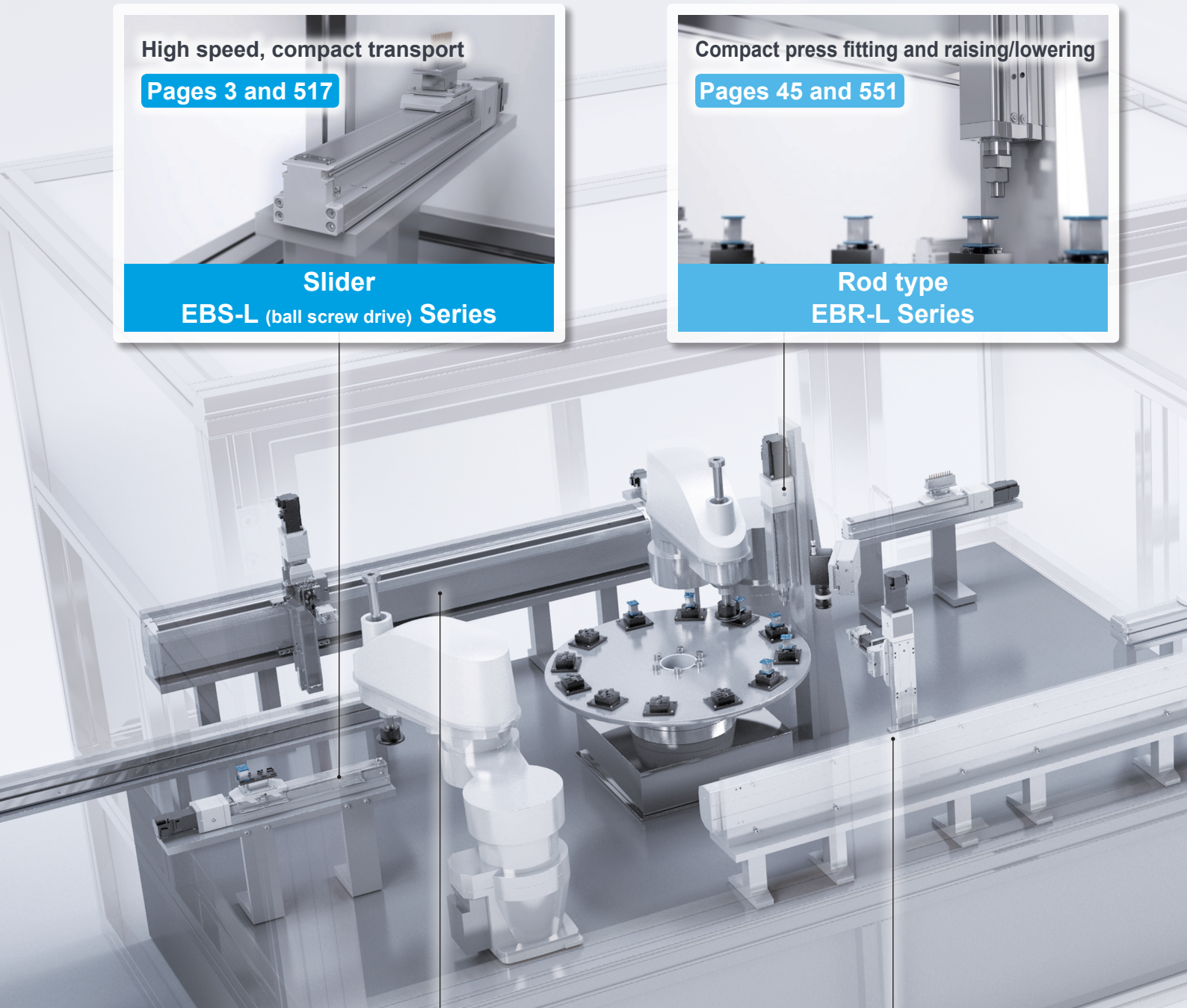
Slider
EBS-L (ball screw drive) Series

Compact press fitting and raising/lowering

Pages 45 and 551



Rod type
EBR-L Series



For high load capacity Pages 85 and 583



Slider ETS (ball screw drive) Series
ECS (ball screw drive, low dust generation) Series

For long stroke transport Pages 343 and 399



Slider ETV (belt drive) Series
ECV (belt drive, low dust generation) Series

specifications. Making devices more

For short tact transport

Page 457



Slider

EKS-L (ball screw drive) Series

List of supported motor manufacturers

	EBS-L EBR-L	ETS/ECS/ ETV/ECV	EKS-L
Mitsubishi Electric Corporation	●	●	●
Delta Electronics Co., Ltd.	●	●	●
Sanyo Denki Co., Ltd.	●	●	●
YASKAWA Electric Corporation	●	●	●
Keyence Corporation	●	●	●
Panasonic Corporation	●	●	●
OMRON Corporation	●	●	●
Fuji Electric Co., Ltd.	●	●	●
Fanuc Corporation	●	●	●
DENSO WAVE Incorporated		● ^{*1}	
Bosch Rexroth AG	●	●	●
Rockwell Automation, Inc.	●	●	●
SIEMENS AG	●	●	●

List of supported stepper motor manufacturers

	EBS-L EBR-L	ETS ECS
Oriental Motor Co., Ltd.	●	●
MinebeaMitsumi Inc.	●	●
Dyadic Systems Co., Ltd.	●	●

* Refer to the pages of each model for compatibilities and capacities.

*1 Only compatible with metal stopper specifications (ETS-X).

EBS-L/EBR-L Series

- Industry standard models
- Repeatability ± 0.01 mm
- Supports various industries

Versatility



High load capacity

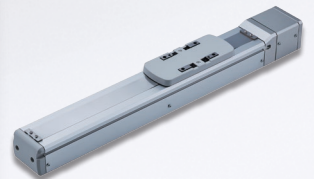
ETS/ECS Series

- Max. load capacity: 150 kg (horizontal)
- Repeatability ± 0.01 mm
- Line-up for low dust generation specs.
- Supports various industries

Wide variety



High precision



EKS-L Series

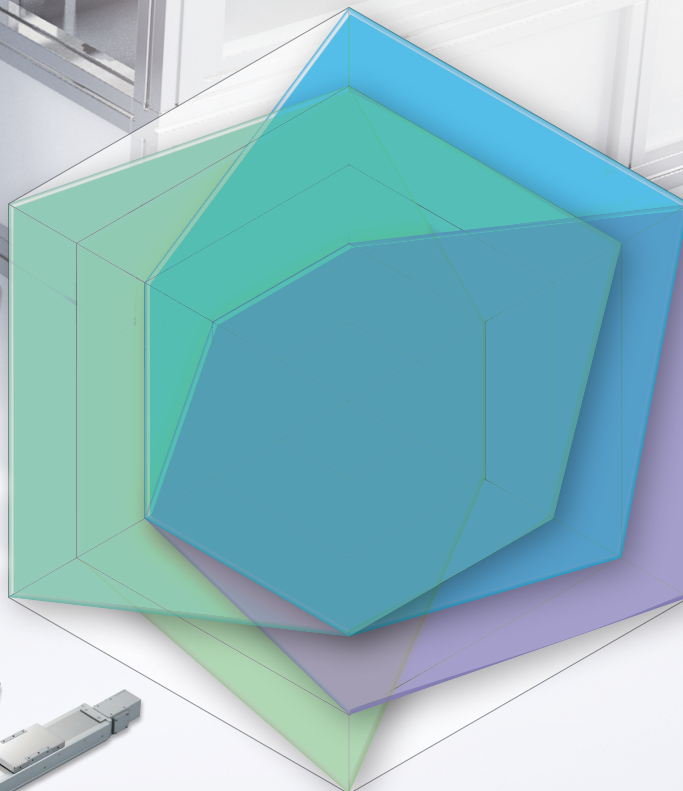
- Repeatability ± 0.01 mm
- Compatible with an acceleration/ deceleration of 2 G
- Supports various industries

Short tact

Long stroke length

ETV/ECV Series

- Max. stroke length: 3500 mm
- Line-up for low dust generation specifications
- Supports various industries



High speed, compact transport

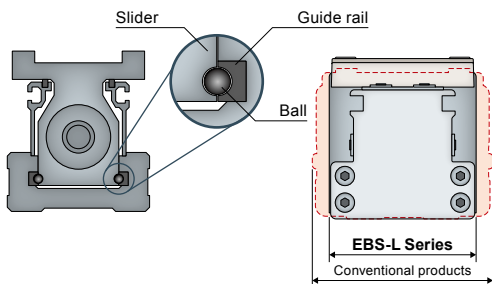


Slider EBS-L (ball screw drive) Series

For saving more equipment space

Compact highly rigid body

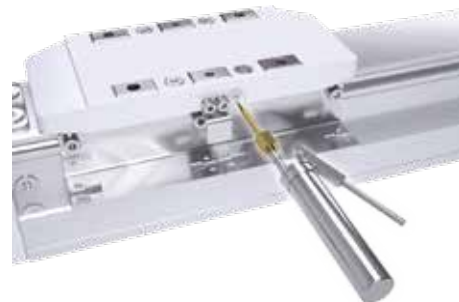
The load supporting guide used is an **outer rail**. The **broad guide is integrated with the body** to enable a compact and highly rigid design.



Easy maintenance

Equipped with a greasing port

Equipped with a port that enables **direct greasing from the outside**. Maintenance can be performed on the guide and ball screw by greasing them **from one point** without disassembling the body.



	Body width	Static allowable moment		
		MP	MY	MR
Conventional products	65 mm	80 N·m	70 N·m	75 N·m
EBS-05L	54 mm	103 N·m	103 N·m	144 N·m

↓ ↓ ↓ ↓
11 mm **28%** **47%** **92%**
 Less More More More





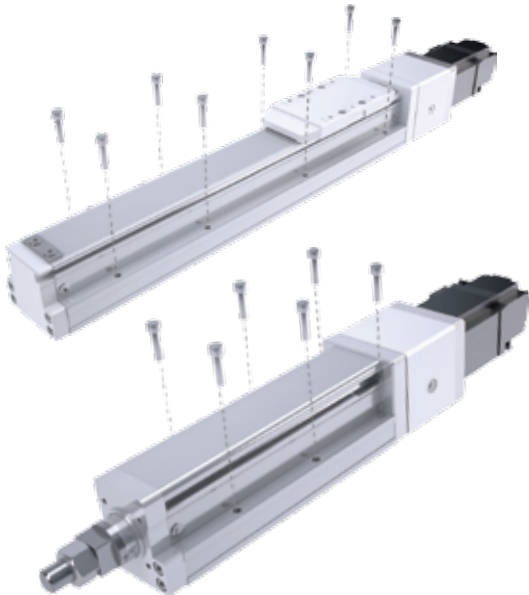
Compact press fitting and raising/lowering

Rod EBR-L Series

Reduces body mounting work hours

Mounting holes provided on the top and bottom of the body

Direct mounting from the top and bottom is possible without removing the cover. Work is significantly reduced especially when mounting from the top.

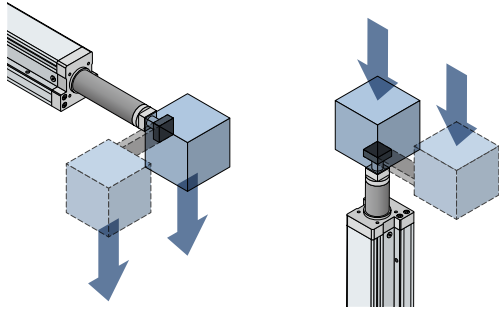


Reduces the necessity for attached guides

Guide integrated rod

The same **guide** used in EBS-L Slider is integrated. A strong structure for offset workpieces as well. Realizes a **stroke longer than conventional strokes**.

Compatible with offset workpieces



A wide variety that corresponds to a multitude of applications and specifications



Slider ETS/ECS/ETV/ECV Series

A wide variety that covers all models

- Max. load capacity 150 kg
- Max. stroke length 3500 mm
- Max. speed 2000 mm/s
- Lead 2 to 40 mm

* ETS and ETV are described with their max. ranges.

There are many varieties made to correspond to all applications and specifications used in the industry based on ball screw drive ETS and belt drive ETV.

Prevent further dust generation with ECS and ECV

Full cover + suction port

The ECV with low dust generation specifications uses the same ball screw drive as ETS and the same belt drive as ECS and ETV with low dust generation specifications. Low dust generation realized with a gapless structure and the suction port. Ideal for liquid crystal panel manufacturing lines and foodstuff lines.



Easy maintenance

Grease nipple equipped

* Select by model No.

Equipped with a grease nipple that enables **direct greasing from the outside**. Maintenance can be performed on the guide and ball screw by greasing them **from one point** without disassembling the body.



Simple position detection with high precision

Origin sensor and limit sensor provided

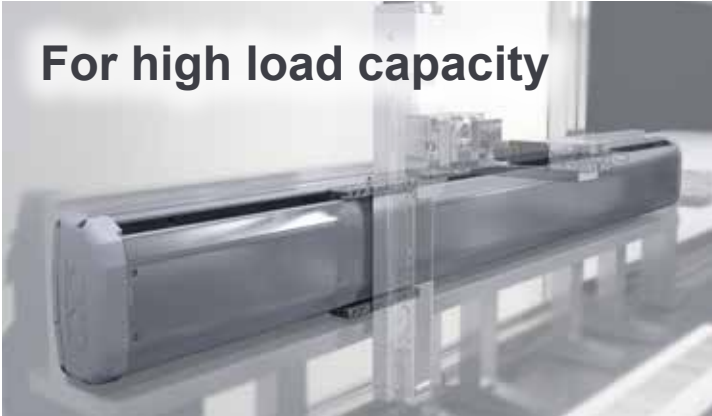
Simple and highly accurate position detection enabled by the photomicro sensor. The sensor mounting direction can also be selected.



Outside sensor



Outside sensor dog



For high load capacity

Slider **ETS** (ball screw drive) Series
ECS (ball screw drive, low dust generation) Series

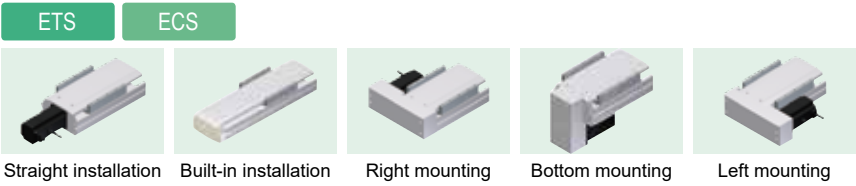


For long stroke transport

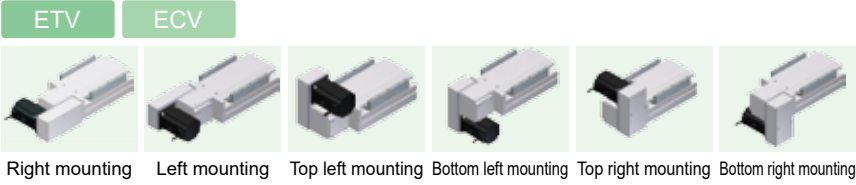
Slider **ETV** (belt drive) Series
ECV (belt drive, low dust generation) Series

Customize to fit the equipment space

Lineup with a wide variety of motor mounting directions



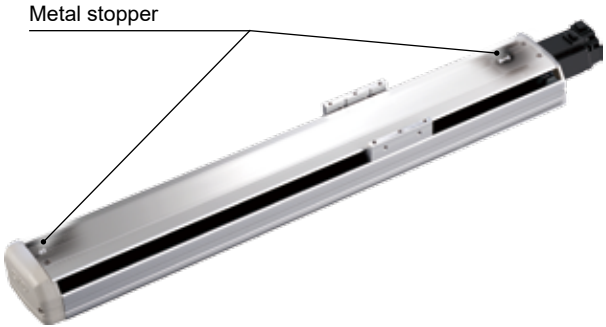
Motor mounting directions for 5 types of ball screw drive and 6 types of belt drive are provided. Effectively uses the available equipment space.



* The images above use sizes ETS-10 and above

Accurate origin positioning is possible

Equipped with metal stoppers **ETS**
The metal stoppers make **push origin positioning** easier and more secure.
* Compatible with sizes ETS-06 and above.



Slider

ETS Multi Axis Series

Ideal for multi-axis operation suited to the application **ETS**
Multiple models suited to a wide variety of specifications.

A type (X-Y axes)
Max. load capacity: 50 kg
6 Sizes



G type (with X-Y axes support guide)
Max. load capacity: 50 kg
2 Sizes



P type (X-Z axes)
Max. load capacity: 35 kg
3 Sizes

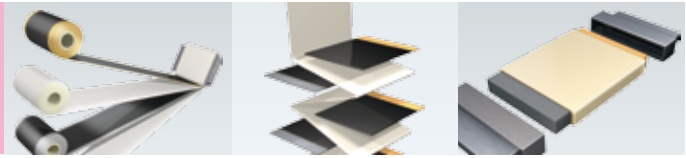


F type (X-Y axes)
Max. load capacity: 22 kg
3 Sizes



For rechargeable batteries

P4 Series



Suited to the rechargeable battery manufacturing processes

- EBS** **EBR** **EKS**Catalog No. ▶ CC-1431A
- ETS** **ECS**Catalog No. ▶ CC-1283A

- Limits the usage of copper-based materials
- Usable even in ultra-dry environments with a low dew point
- Optional anti-rust treatment also available



For Food Manufacturing Processes

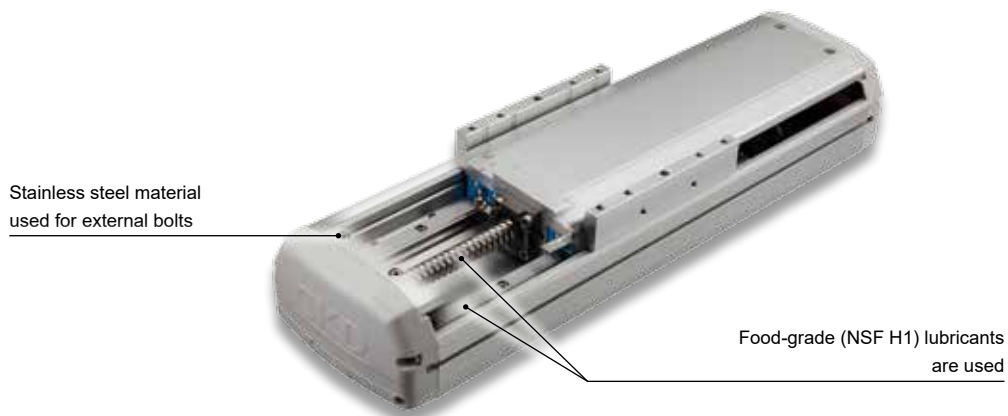
FP1 Series



Ideal for the foodstuffs industry

- EBS** **EBR** **EKS**Catalog No. ▶ CC-1430A
- ETS** **ECS** **ETV** **ECV**Catalog No. ▶ CC-1320A

- Food-grade NSF H1 lubricants are used on flow paths and sliding portions.



For short tact transport

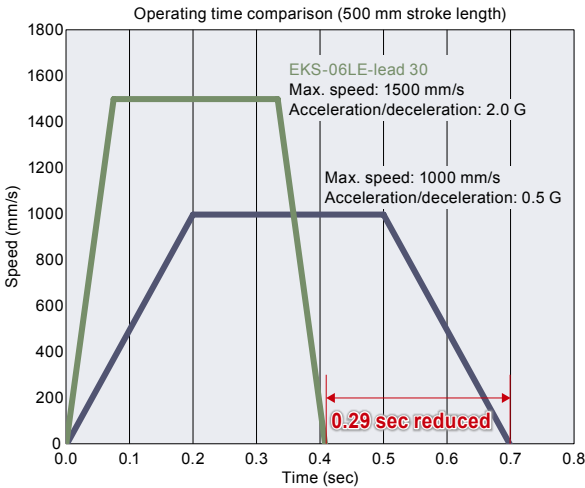


Slider EKS-L (ball screw drive) Series

Shortened tact time

Compatible with an acceleration/
deceleration of 2 G

A wider ball screw size than conventional models to **further shorten tact and increase speed**. Compatible with **acceleration/ deceleration up to 4 G** depending on conditions.



For saving more equipment space

Iron body with a strong structure for load and moment

Adopts a U-shaped **outer rail guide** with an iron body. Realized an actuator with a **strong structure suited to moments generated by short tact**.

