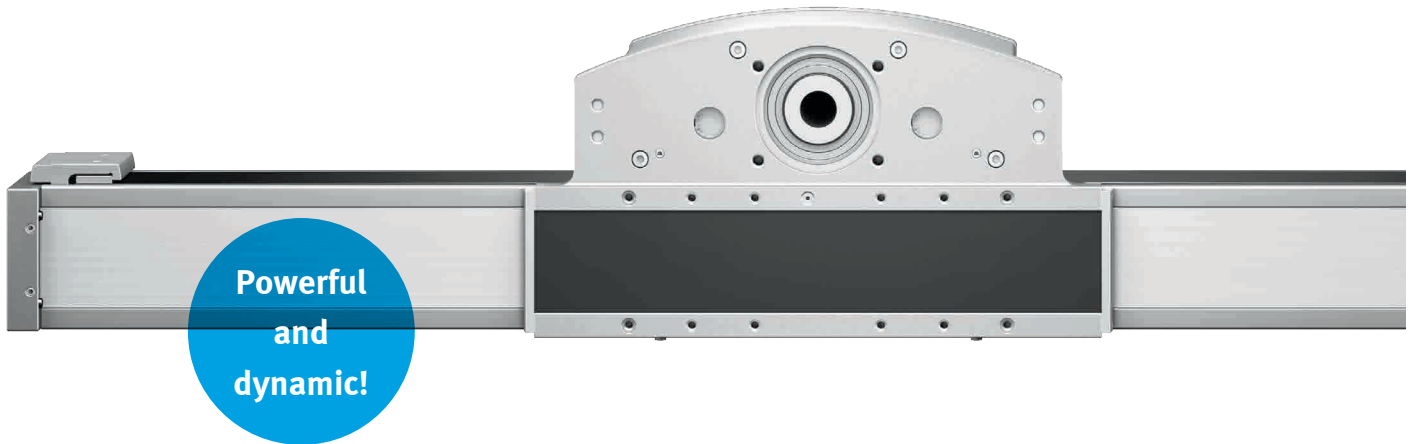


Cantilever axis with toothed belt ELCC

FESTO



Faster cycle times!

Highlights

- Fewer vibrations and up to 50% faster settling time
- Very high acceleration and up to 30% faster cycle time
- Maximum stroke up to 2 m and 100 kg load
- Optional stainless steel cover strip
- Optional sealing air
- Optional clamping unit for a secure hold

Extremely rigid and lightweight, fast and reliable, the powerful ELCC cantilever axes can take on many roles. These include palletising and erecting boxes in the packaging industry and a wide range of positioning tasks with long strokes at vertical, horizontal or other installation angles. With a profile that moves in and out of the workspace, the axis can be removed from the working area.

Perfect for heavy loads and short cycle times

Thanks to the design of the toothed belt drive and guide with 90° offset, and the design of the slide and profile, which has an optimal cross section to weight ratio, the ELCC is more than capable of handling high forces and torques and heavy payloads. It also offers faster cycle times so you can either use a smaller size or move higher payloads.

Safety features abound

The ELCC offers plenty of safety features, such as a clamping unit without axis extension, incremental displacement encoder and proximity sensor, stainless steel cover strip, sealing air or shock absorber.

Versatile and flexible

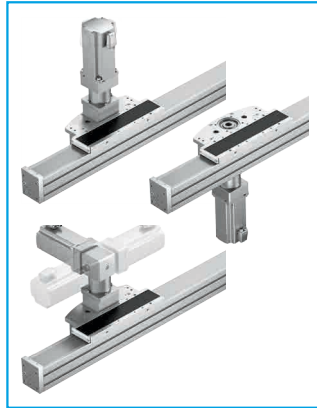
You can choose from four sizes with a stroke up to 2 m, optional additional slides, lots of motor mounting options and toothed belt materials tailored to the application.

The ELCC series at a glance

Designs, variations and technical features made for versatile applications

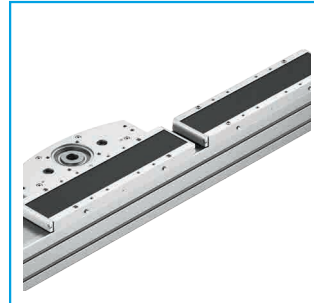
Flexible motor positioning

- Freely selectable mounting direction up or down
- Mounting that is axial, parallel or diagonal to the axis
- Motor alignment $4 \times 90^\circ$
- Can be modified later
- Optional mounting kits for third-party motors



Additional slide

- Extends the guide, increases the rigidity with longer strokes and enhances load-bearing capacity, especially when used horizontally
- Reduces vibrations and significantly shortens reverberations



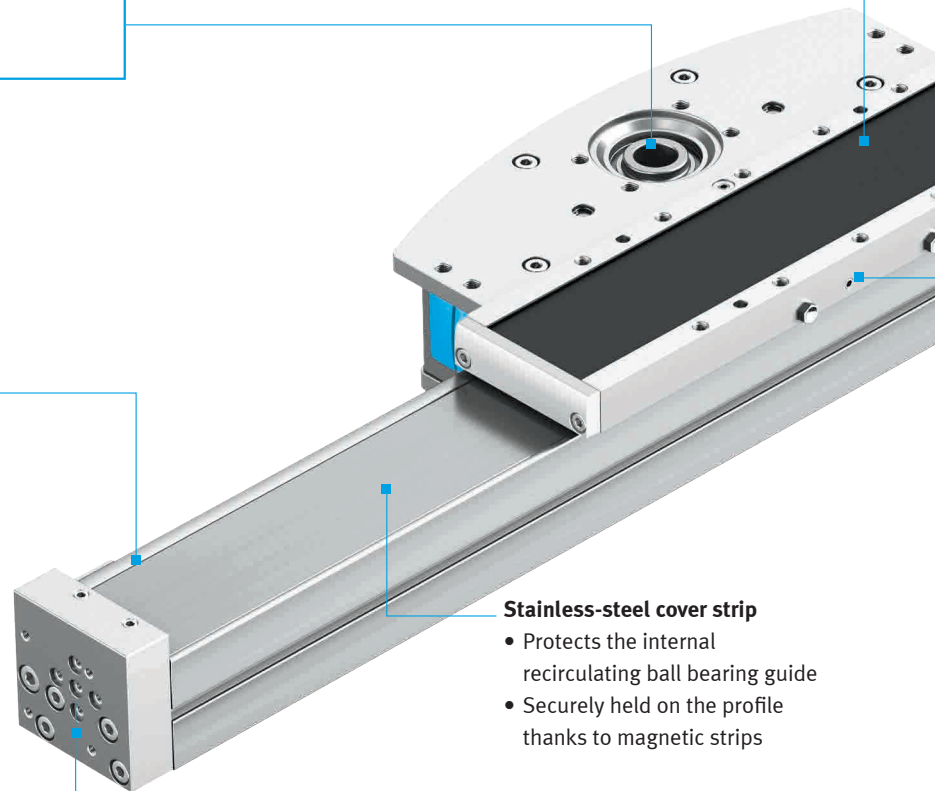
Protection with shock absorber

- Absorbs the end position impact of the axis in the event of a crash
- Prevents damage during set-up, absorbs short fall distances of a vertically installed, de-energised axis
- Shock absorber can be mounted at both ends



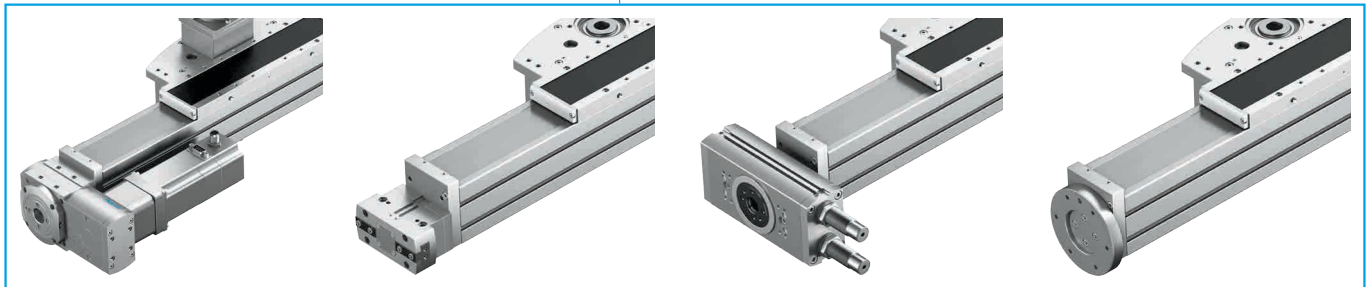
Perfectly fitting electric and pneumatic components at the front end

Easy to mount – convenient and fast, directly from the catalogue



Stainless-steel cover strip

- Protects the internal recirculating ball bearing guide
- Securely held on the profile thanks to magnetic strips



Electric rotary module ERMB

Rotary axis with any rotation angle $>360^\circ$

Parallel gripper HGPT-B

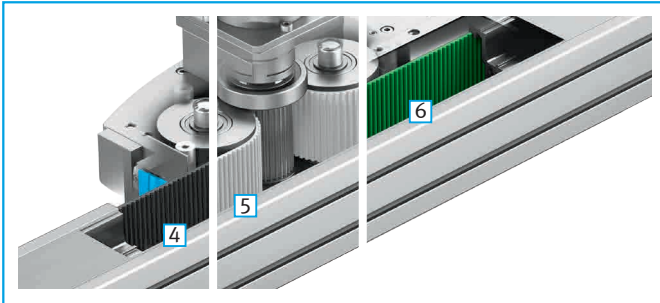
Robust T-slot gripper with a gripping force of up to 6300 N

Semi-rotary drive DRRD

Swivelling high loads up to 200°

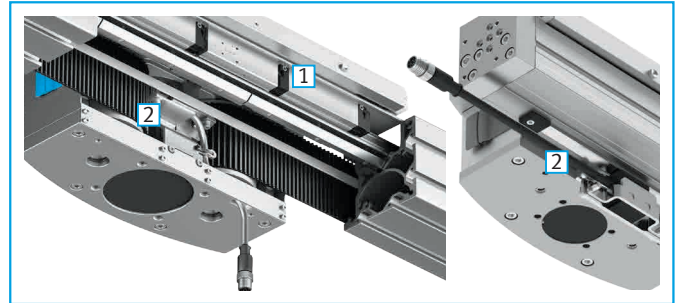
Robot flange

Front end interface for industrial robots in accordance with ISO 9409-1



Durable toothed belt

- Wider toothed belt possible for higher forces and dynamic response
- Three material options
 - Durable standard toothed belt made of polychloroprene with fibreglass cords [4]
 - Polyurethane toothed belts with steel cords for packaging applications in the food industry [5]
 - Coated polyurethane toothed belt with long service life for greater resistance to lubricants, such as in machine tools [6]

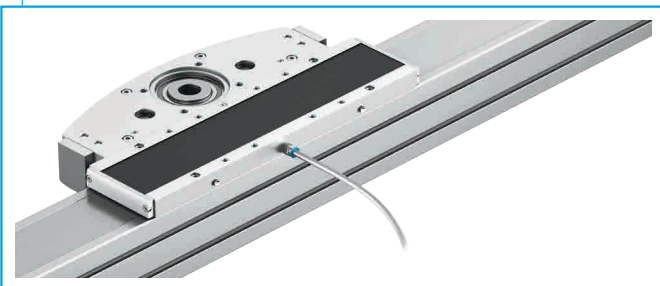
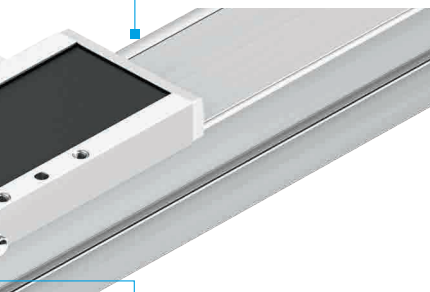


Clamping unit [1]

- For securely holding the load
- Spring-loaded brake shoes secure the axis directly to the guide rail and are engaged and disengaged using compressed air
- Clamps the upright axis for a secure hold even in the event of a power failure or cable break
- Double the holding force: with two slides and a second clamping unit
- Suitable for emergency braking only
- Clamping unit can be selected for sizes 70, 90 and 110
- Not in connection with sealing air

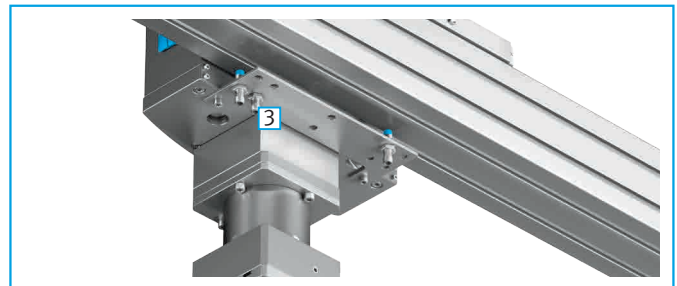
Incremental displacement encoder [2]

- Contactless position sensing with 2.5 µm resolution
- Direct monitoring for safety-related two-channel solutions
- Greater positioning accuracy, as elasticity is adjusted by the servo drive controller
- Encoders for size 60 and 70 are mounted externally; for sizes 90 and 110 they are protected inside the axis



Sealing air connection

- Sealing air connection near the recirculating ball bearing guide
- Minimises the amount of particulate that gets into the axis, e.g. in dusty environments or on machine tools
- Sealing air function only in connection with cover strip
- Not in connection with the clamping unit

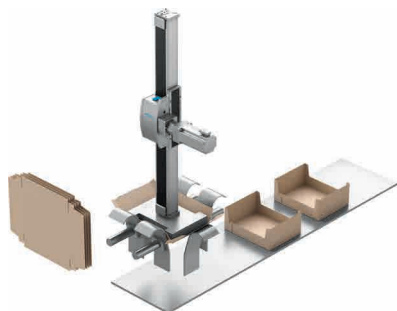


Inductive proximity sensor [3]

- For homing or sensing the end positions
- Proximity sensor SIEN-M8 with switching output PNP or NPN
- Can be installed alongside the displacement encoder

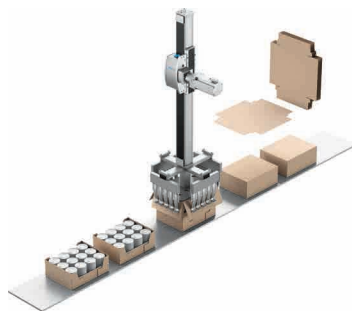
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Typical applications for the ELCC in the food and packaging industry



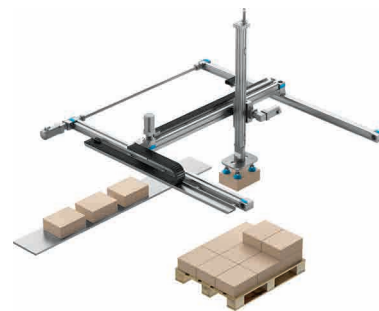
Box erector in secondary packaging

In the first module of a packaging system, the box erector ensures that the box is folded correctly and precisely as well as quickly and economically. The packaged goods can then be transported securely without being damaged. The ELCC takes on the vertical linear function at the erecting station. Thanks to its technical performance data, you can fold almost all box materials, thicknesses and sizes.



Box lidder in secondary packaging

As the last unit before the palletiser, the box lidder folds the lid and places it on the box. This ensures that the goods are packaged safely and securely in the box. The ELCC takes on the vertical linear function at the lid station. Thanks to its technical performance data, you can fold almost all box materials, thicknesses and lid sizes.



Palletiser in tertiary packaging

The palletiser stacks boxes or other packaging on a pallet, thus placing extremely high demands on cantilever axes: high packaging weights and large and, above all, high workspaces. The design and strong performance data of the ELCC allows you to load pallets efficiently, dynamically and precisely with almost no vibration.

Overview of technical data for vertical applications

Size		60	70	90	110
Guide		Recirculating ball bearing guide (2 guide cartridges)			
Nominal stroke	[mm]	50 ... 1300	50 ... 1500	50 ... 2000	50 ... 2000
Max. recommended payload* (vertical)	[kg]	10	20	60	100
Max. speed	[m/s]	5			
Max. acceleration	[m/s ²]	50			30
Repetition accuracy	[mm]	±0.05			
Max. feed force	[N]	300	600	1200	2500

* Higher loads are also possible if designed via the PositioningDrives engineering software.



Overview of cantilever axis ELCC sizes

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