



EWELLIX

## EWELLIX actuators

The future is electric

We pioneer motion

**SCHAEFFLER**

# Our offer

Schaeffler offers a wide range of EWELLIX linear actuators and high performance actuators, in a variety of designs and setups for both general and specific industrial applications. Electric linear actuators create stable, accurate back and forth movement and can be used in an endless range of applications. If the process involves pushing, pulling, lifting or sliding, an EWELLIX linear actuator from Schaeffler can be an energy and cost-efficient solution.

Unlike pneumatic or hydraulic cylinders, electromechanical actuators are flexible, speed can be dynamically set, and can be positioned precisely. In addition, due to a reduced number of components, the whole system is more cost effective, resulting in lower energy use and maintenance costs.

We understand the range of product is vast, so we want to recommend the products we see most commonly used in applications in the industrial market.

## Common applications

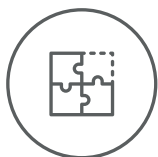
- Material forming
- Food and beverage
- Machine tools
- Assembly processes
- Medical
- Simulators/hexapods
- Automation

## General features



### Wide assortment

Wide stroke, force and speed ranges; possibility of integrated controller and advanced functions. Different voltage options are available.



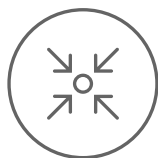
### Customizable

Customizable stroke/retracted length, cable length, and attachment parts. Additional design options like limit switches, positioning feedback and manual override are available.



### Easy to integrate

They can be used in new machine builds and/or replace hydraulic and pneumatic cylinders in existing equipment.



### Precision and repeatability

High performance range offers an accurate positioning based on motor feedback system. The low backlash design provides positioning precision of up to  $\pm 0,01$  mm.





### Stable and reliable

High static force and self-locking force long service life.

# Products overview




## Low duty cycles

Duty cycle up to 25-40% at low speeds and forces up to 12 kN


	<p><b>EWELLIX CAHB actuators</b> Engineered to operate in severe environments at temperatures from –40 to +85 °C with a maximum duty cycle of 25 % and consist of robust metal gears with corrosion-resistant housings. Seven families of linear actuators, virtually maintenance-free, self-locking up to 2 times the rated load and up to IP69K/66M.</p>
	<p><b>EWELLIX Matrix actuators</b> The Matrix series is specially developed and approved for medical applications. It includes powerful linear AC and DC actuators. These run very quietly, take up very little space and can be installed at virtually any angle, both vertically and horizontally.</p>

## High duty cycles

Duty cycle up to 100%, high speed and forces up to 500 kN

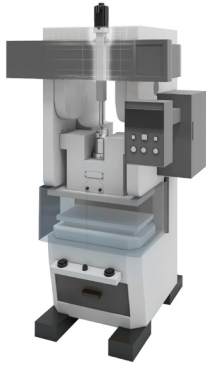
	<p><b>EWELLIX CASM 32/40/63</b> Ideally suited to perform fast and powerful linear movements. Unlike pneumatic or hydraulic cylinders, CASM electric cylinders are flexible and thus can be positioned accurately. Their modular concept enables easy connection to any preferred motor and control systems, considerably reducing design and programming costs.</p>
	<p><b>EWELLIX LEMC</b> The LEMC series of electric cylinders is designed to replace hydraulic systems. They are equipped with a precision roller screw drive with electric motor and gearbox. This combination results in an actuator with a higher power density than conventional models.</p>
	<p><b>EWELLIX EMA-100</b> We developed an innovative modular electric cylinder platform to address most of the applications in the automation and heavy machinery industries, mainly replacing hydraulic solutions. In this new design, instead of limiting the selection on the “linear unit - gearbox – motor” modules only, Schaeffler takes it a step further. The modularity has been extended to the base component level. Within each module, the customer can select the components inside to build a custom-like solution.</p>

## Lifting columns

	<p><b>EWELLIX CPMA/B, TFG, TLG, TLT, CPMT, CPSM</b> Lifting columns (also known as telescopic pillars) are a smart solution to implement a lifting function in industrial and medical equipment. They are quiet, robust, and powerful to satisfy the most demanding requirements.</p>
---	---

# Application examples

## Material forming servo press



Electromechanical servo presses are used for a wide variety of applications including press fitting, stamping or clinching. Larger presses can be used for high precision deep drawing. Schaeffler roller screw technology is the best solution to handle the high peak load of those applications and offer the best in class life time, power density and reliability.

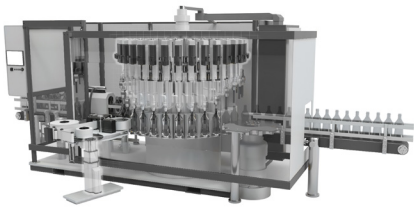
### Features

- Pressing
- Bending
- Cutting
- Press fitting of parts

### Benefits

- Outstanding force repeatability for constant quality
- Easier force and position control
- Longer service life
- Increased productivity
- Lower maintenance cost

## Filling stations



Automated flexible filling stations are used when food and beverage liquid has to be brought into bottles and cans. High acceleration and speed, a long lifetime and easy setup and controllability are key for this application.

### Features

- Dosing
- Filling
- Labelling

### Benefits

- No oil and no risk for oil leaks
- Higher productivity and shorter return on investment
- Maintenance free
- Flexibility for multiple setting
- Efficient for less power consumption
- Lower CO<sub>2</sub> footprint



## Simulators and amusement

Simulators are used to imitate movement behaviour under realistic conditions, be it for scientific, training or entertainment purposes. With the help of multi-axis systems almost all movement patterns can be imitated with high accuracy and reactivity.

### Features

- 6 degrees of movement (roll, pitch, yaw, heave, surge, sway)

### Benefits

- Low noise
- High motion accuracy and repeatability
- Compactness
- Full flexible motor selection
- Complete range, platform for a few kg to platforms for +6 000 kg with 2 m stroke and speed of 1,7 m/s



## Medical stretchers and physical therapy tables

Adjustable physiotherapy/medical beds promote a safer workplace for the caregiver, allowing the patient to be in a more comfortable position and the caregiver to quickly and easily adjust the height of the bed, the back and leg rest to an optimal level. Actuators make it possible to lift and adjust a position using either a handset or a foot switch.

### Features

- Height adjustment
- Backrest adjustment
- Legrest adjustment

### Benefits

- Compact and robust design
- Quiet and smooth operation
- Designed for medical devices, compliant to IEC 60601-1
- Easy to install and operate
- Plug-and-play solution that reduces time-to-market



## Building automation

Actuators are installed in many modern buildings. These electromechanical actuators open and close traditional and tilt windows, dome lights, facade elements, blinds as well as smoke and heat extraction flaps, at the touch of a button or automatically, using climate sensors (wind/rain) and temperature and smoke sensors.

### Features

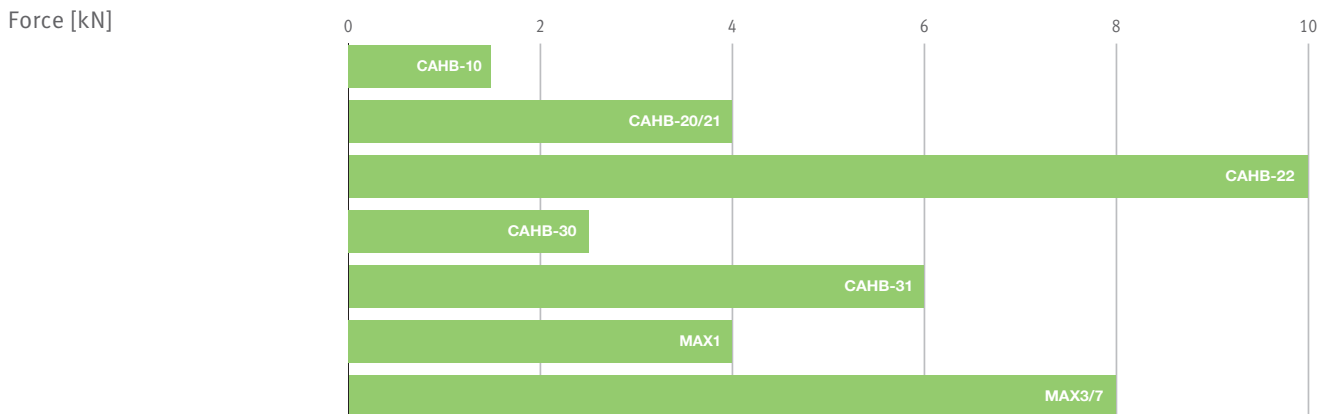
- Opening and closing
- Tilting

### Benefits

- Silent and smooth operation running
- Compact and powerful
- Easy to integrate
- Easy to install
- Robust and reliable
- Economic and cost effective

# Range performance overview

## Low duty cycles



Linear speed Up to 193 mm/s

Stroke Up to 700 mm

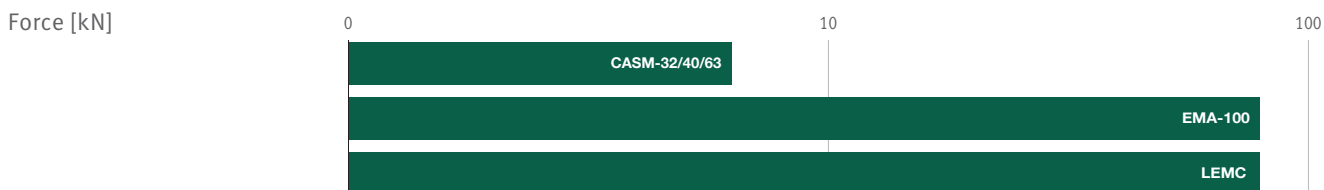
Duty cycle Up to 40 %

IP grade Up to 69K

Motor types 12, 24, 36, 48 VDC

Feedback types Potentiometer

## High duty cycles



Linear speed Up to 1110 mm/s

Stroke Up to 2000 mm

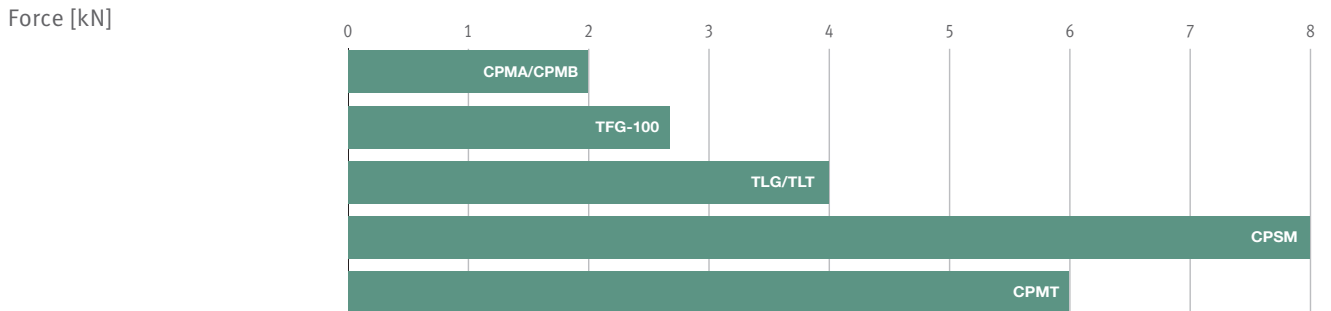
Duty cycle Up to 100 %

IP grade Up to 65

Motor types 24, 40, 600 VDC

Feedback types Encoder

## Lifting columns



Linear speed	Up to 100 mm/s
Stroke	Up to 700 mm
Duty cycle	Up to 100 %
Bending load	Up to 2800 Nm
Motor types	24 VDC / 100, 120, 230, 240 VAC
Feedback types	Encoder

## Supporting tool

### Digital

Schaeffler has developed a portfolio of tool to support customers in easy selection and calculation the right Schaeffler product for their application.

#### EWELLIX Actuator select

- Product selection
- Performance calculator
- Cost saving calculator



#### EWELLIX Actuator select

- › Scan QR code
- › Click on [link](#)

### Publications

Supporting documents are available for download on Schaeffler.com on each product page under the technical data section:

- Operating manual
- Mounting instruction



#### EWELLIX High performance actuator

- › Scan QR code
- › Click on [link](#)

**Schaeffler Technologies AG & Co. KG**

Industriestrasse 1–3  
91074 Herzogenaurach  
Germany

[www.schaeffler.com](http://www.schaeffler.com)  
[info@schaeffler.com](mailto:info@schaeffler.com)

In Germany:

Phone 0180 5003872

From other countries:

Phone +49 9132 82-0

Every care has been taken to ensure the correctness of the information contained in this publication but no liability can be accepted for any errors or omissions. We reserve the right to make technical changes.

© Schaeffler Technologies AG & Co. KG

Issued: 2025, September

This publication or parts thereof may not be reproduced without our permission.