

Press Release

Electromechanical linear actuator enhances comfort and efficiency of patient tables and operating tables

SCHWEINFURT, 2026-02-05.

- Schaeffler is expanding its platform of EWELLIX EMA-series linear actuators with a new variant for medical technology
- Powerful and compact: new possibilities for manufacturers of imaging equipment
- The new EWELLIX EMA-80M can lift up to 20,000 N with speeds of up to 25 mm/s
- Operates very quietly and smoothly

The EWELLIX EMA-80M linear actuator now expands Schaeffler's product range for medical imaging and operating room applications. Designed specifically for height-adjustable patient and treatment tables, this new development underscores the Motion Technology Company's ambition to also be the preferred technology partner for its customers in medical technology.

For Schaeffler, the medical technology sector is an important future market characterized by innovation, technological challenges, and growth potential. In recent years, the company has significantly expanded its commitment to this sector by adding modular EWELLIX linear actuators to its portfolio. Christian Mangold, Product Manager Medical at Schaeffler, explains: "The new EMA-80M now completes our offering. Virtually all medical devices and applications in imaging can now be equipped with rolling bearings, precision guidance systems, rotary drives, lifting columns, and linear actuators from Schaeffler."

Simplified design of patient tables

At the same time, the EMA-80M opens up new design possibilities for manufacturers of patient tables and operating tables used in imaging systems such as computed tomography (CT) and magnetic resonance imaging (MRI). Until now, electromechanical solutions have offered maximum forces of up to 12,000 N (newtons). However, at low lifting heights, scissor-lift tables require significantly higher forces due to unfavorable lever kinematics. As a result, manufacturers have often had to use either two electromechanical linear actuators or a hydraulic cylinder. With the EMA-80M, an actuator is now available that delivers a maximum push or pull force of 20,000 N. This enables manufacturers to dispense with parallel linear actuator arrangements or the use of a hydraulic cylinder altogether in future.

The EMA-80M therefore represents a compact, energy-efficient, oil-free, and maintenance-free alternative. It significantly simplifies the design of patient tables and reduces overall system costs. Thanks to its unique combination of high-power density and compact design, the linear actuator delivers maximum performance in applications with limited installation space. Schaeffler's engineers have also considered the efficient operation of computed tomography and magnetic resonance imaging systems: with speeds of up to 25 mm/s, the required table heights can be reached particularly quickly.

Developed to meet the requirements of medical technology

The new EWELLIX linear actuator operates very quietly and smoothly and is available with stroke lengths ranging from 50 to 700 mm. The EMA-80M is consistently designed for durability, offering a significantly extended service life compared with existing standard market solutions, while meeting all requirements of IEC 60601-1 ed. 3.2, including fourfold static overload capability. Manual emergency operation in the event of a power failure is also possible.

The safety concept additionally includes an integrated mechanical brake, for which a patent application has been filed. When the motor is de-energized, the brake securely holds the linear actuator, and therefore the patient, in position. These integrated additional functions render the complex and costly adaptation of conventional industrial cylinders unnecessary.

With its compact design, the EMA-80M can be seamlessly integrated into scissor-lift or parallelogram lifting mechanisms, enabling particularly low entry heights. A magnet sensor, an optical encoder, and a mechanical absolute encoder are available as position feedback options. The sealing system meets the requirements of protection class IP65M. In terms of the motor, customers can choose between a 48 V DC or 220 V AC version, each with an output of 750 W. A standardized interface also allows customers to use their own motors and control systems.

Further information is available here: [EWELLIX EMA-80M: inform yourself & order online on Schaeffler medias](#)

Schaeffler Group – We pioneer motion: The Schaeffler Group has been driving forward groundbreaking inventions and developments in the field of motion technology for 80 years. With innovative technologies, products, and services for electric mobility, CO₂-efficient drives, chassis solutions and renewable energies, the company is a reliable partner for making motion more efficient, intelligent, and sustainable – over the entire life cycle. Schaeffler describes its comprehensive range of products and services by means of eight product families: From bearing solutions and all types of linear guidance systems through to repair and monitoring services. Schaeffler is with around 110,000 employees and more than 250 locations in 55 countries, one of the world's largest family-owned companies and one of Germany's most innovative companies.

Powerful, energy-efficient, and maintenance-free: the modular EWELLIX EMA-80M linear actuator from Schaeffler was specifically designed for the electric height adjustment of patient tables. (Image: Schaeffler)

[Download](#)

Example installation of an EWELLIX EMA-80M linear actuator in a scissor-lift table kinematic system. (Image: Schaeffler)

[Download](#)

CONTACT:

Gregor le Claire

Head of Communications Bearings & Industrial Solutions

Tel.: +49 9721 91-3888

E-Mail: gregor.leclaire@schaeffler.com

Johanna Katzenberger

Communications Bearings & Industrial Solutions

Tel.: +49 9721 91 5125

E-Mail: johanna.katzenberger@schaeffler.com