

Optimised stepper motor family from Festo

Delivers energy and cost reductions

Innovation in stepper motor technology means the gap between stepper and servo technology is narrowing. In applications where the performance of a servo motor is not required because there are no highly dynamic loads or high speed demands, the stepper (with its choice of battery-less encoders and motor brakes) offers closed loop positioning.

Today, the humble stepper can offer surprising cost effectiveness with uncompromised performance at extra low voltage. The new, optimised EMMB-ST and EMMT-ST stepper motor family from Festo can be used in conjunction with the CMMT-ST servo drive controller to create a coordinated servo system at an attractive price. The stepper motor family includes models designed for regular and advanced industrial automation applications, enabling machine builders and system designers to choose the most cost-efficient option.

The EMMB-ST range of stepper motors is the basic series for regular industrial applications. This cost-effective model is particularly suitable for series machine manufacturers and applications in electronics and small parts handling. It features a One Cable Plug (OCP) cable that saves space and enables front or rear alignment. Providing reliable and cost-effective operation, EMMB-ST stepper motors are rated to IP20 (shaft IP40).

The premium range of EMMT-ST stepper motors are designed for applications that require a higher IP rating and outstanding levels of connectivity. This model is rated to IP65 (shaft IP40) and holds UL certification. It features an OCP cable with a solid M17 plug that can be rotated through 310°.

The compatible CMMT-ST servo drive controller supports multiple fieldbus protocols as standard as well as Safe Torque Off and Safe Stop 1 functions. The controller features an energy management function that can make the most ordinary positioning system more sustainable. For example, it can save energy in battery systems in Automated Guided Vehicles (AGVs), Autonomous Mobile Robots (AMRs), forklifts or small load carriers. At just 27mm wide and only needing a 24 or 48V DC power supply, the CMMT-ST controller offers a convenient choice for centralised or decentralised architectures.

Festo online selection and configuration tools, such as the Electric Motion Sizing Tool, mean that specifiers can select the right drive package quickly and reliably. Faster and easier commissioning is also possible using Festo's Automation Suite (FAS) software.

28. April 2025

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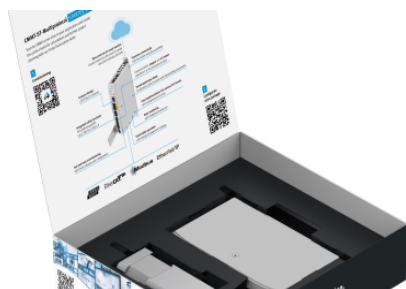
Festo offers a starter kit containing a CMMT-ST controller with multi-protocol function, an EMMT-ST stepper motor and matching motor/encoder cables with OCP technology. It can be used to develop solutions for individual automation tasks and to test possible applications. The kit is easy to use and intuitive to install with the Festo Automation Suite software and provides the full range of functions. Also included is an hour of remote support from Festo's expert applications team to give you a head start.

Press Images



Extra low voltage system 1

Festo's EMMB-ST and EMMT-ST stepper motor family: in combination with the CMMT-ST servo drive controller, it offers users a coordinated servo system at an attractive price.



Extra low voltage system 2

Festo's starter kit contains a CMMT-ST servo drive controller with multi-protocol function, an EMMT-ST stepper motor and matching motor/encoder cables.

Festo GB & IE

About Festo

Festo is a leading international supplier of automation technology with a turnover in 2024 of around €3.45 billion. Festo employs over 20,000 people worldwide and is a proven innovator and problem solver in pneumatic and electrical automation, where it is the performance leader. Festo offers around 36,000 pneumatic and electric products in hundreds of thousands of variants for factory and process automation technology, many of which can be tailored to specific customer needs. Sustainability, reducing its CO₂ footprint, digital learning, innovation, performance and speed are the key drivers for the company's future. Festo GB operates as a carbon neutral organisation and uses the PAS 2060 standard externally audited by NQA to validate this claim to customers, employees and other stakeholders.

Festo Industrial Automation's innovative strength is demonstrated through the launch of around 100 new products every year. The company invests over 8.5% of its turnover in R&D, resulting in over 2,600 patents held worldwide. For more information about the company's products and UK / Irish services, please visit: www.festo.com/gb and www.festo.com/ie

Festo and Industry 4.0 - Festo has engaged with the Industry 4.0 initiative from its inception: as a user, manufacturer and trainer. As a member of the steering group, the company has taken an active role in defining the core standards such as the RAMI model and the Administration Shell. Festo Didactic has installed Industry 4.0 Cyber-Physical Factory training hardware systems in many leading universities and training centres. It also provides Industry 4.0 training courses for change managers and practical workshops for employees. Industry 4.0

technologies such as OPC-UA communications are embedded in the latest generation products. For more information, go to www.festo.com/digitalisation

Festo Didactic training delivers training for industry – by industry. Combining Festo's industrial heritage with its future-focused manufacturing and engineering expertise to deliver courses for greater productivity and competitiveness. Offering a wide range of open courses, structured development programmes and tailor-made, customer-specific projects on technology and Industry 4.0 and the industry-leading online training suite, Festo LX. Festo also provides state-of-the-art training equipment solutions for industrial companies and educational institutions around the world. Festo Didactic has around 56,000 education customers worldwide. More information on Festo training and consulting services can be found at: www.festo.com/didactic

Festo Bionic Learning Network encapsulates the innovative nature of Festo, raising awareness and attracting talent to the company. Exploring the links between nature and technology opens new areas of innovation and demonstrates complex ideas in a stimulating and enjoyable way. Festo works with an alliance of internal R&D, external educational establishments and specialist companies to advance bionic solutions for automation applications of the future. The objective is to benefit from bionics as a source of inspiration and to realise these in industrial automation. For more information about Festo's Bionic Learning Network, please visit: www.festo.com/bionics