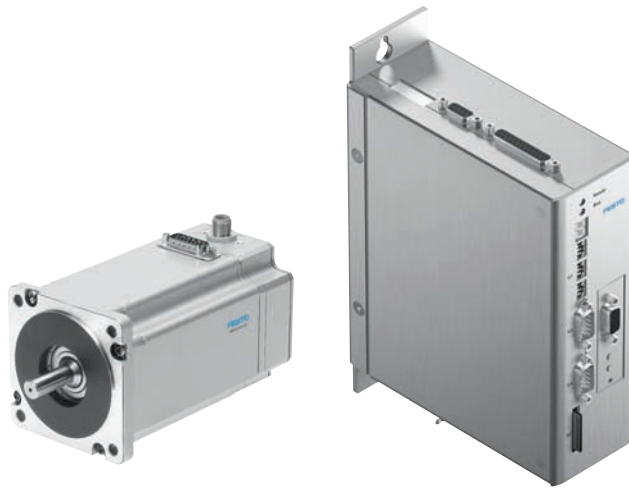


EMMS-ST Stepper Motors and CMMS-ST Intelligent Stepper Drive

FESTO



ServoLite – Servo Performance at the Price of the Stepper

Single Axis Closed Loop Intelligent Stepper Drive CMMS-ST

The CMMS-ST is a closed loop stepper drive where the stepper motor is operated as a brushless servo motor. The drive is not limited to stall detection or end position correction but provides continuous closed loop servo performance. As with any servo drive, the drive can be operated in Position, Velocity and Torque control modes. Features include a high speed capture input for on the fly measurement, integrated braking resistor and filter, variety of industry standard control interfaces and optional slide in network modules.

Reliable Stepper Motors EMMS-ST

The CMMS-ST drive supports a range of two phase hybrid stepper motors (EMMS-ST) which come in two variants (with and without incremental encoder feedback) with optional holding brake and external gearboxes (EMGA) with gear ratios 3:1 and 5:1.

Suitable Applications

Applications would include clamping, pick & place/handling systems, Master-Slave electronic gearing and rotary indexing tables.

Convenient Product Sizing and Selection - Reduced Engineering Time

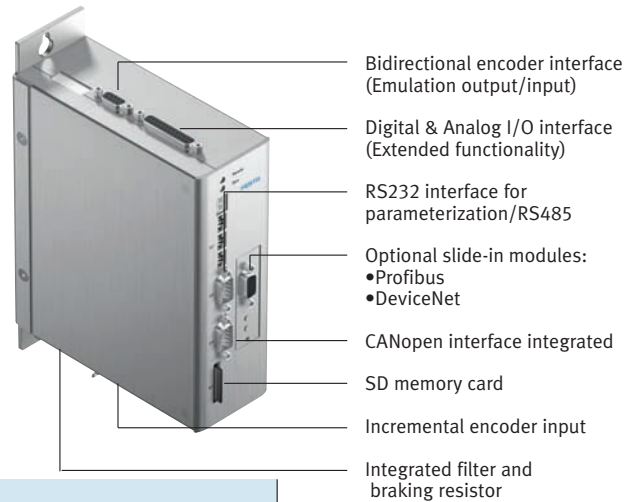
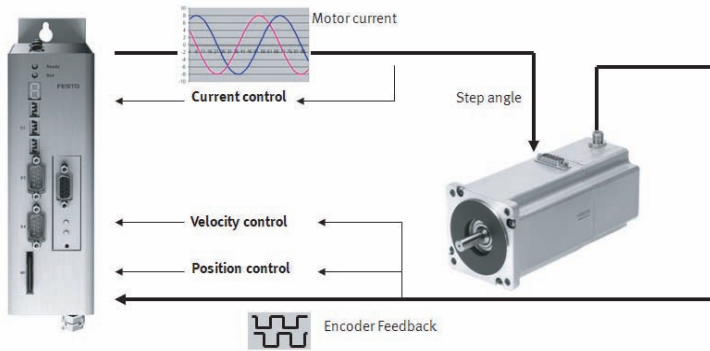
The Festo sizing tool – Positioning Drives – provides a convenient method to size and select product based on the application needs. The user does not require in-depth knowledge on sizing electromechanical systems. The CMMS-ST stepper drive is configured using the Festo configuration tool (FCT) which is a simple to use, easy to navigate, well illustrated configuration software. Tuning parameters for a wide range of Festo actuator, motor, drive combinations are integrated in FCT, significantly reducing engineering time. Configurable diagnostics allows the user to tailor the drives response to various errors and warnings. Festo Handling & Positioning Profile (FHPP) is a simple consistent data format used in network implementation of all Festo drives (for all supported fieldbuses).

User Benefits - Summary

- Cost effective solution – servo functionality with stepper performance (resonance free, no loss in step, position, velocity and force control modes)
- Connectivity to common fieldbuses (Profibus, DeviceNet, CANopen) – integration into a variety of PLC platforms
- Connectivity to all of Festo motion controllers (integrated CAN interface) – seamlessly integrated solutions from a single source
- Easy commissioning (FCT /FHPP) – saves time and significantly reduces engineering and training efforts
- SD memory card – ideal for high volume duplication of drives, restoration of original settings, quick drive swap out, while maintaining consistency in firmware and user project
- Reduced inventory – the ServoLite drive caters to a broad spectrum of applications with an array of integrated control interfaces
- Position set table and linking functionality reduces PLC I/O and programming

EMMS-ST Stepper Motors and CMMS-ST Intelligent Stepper Drive

ServoLite – True Closed Loop Servo Performance



General technical data CMMS-ST

Torque at standstill	[Nm]	Up to 9.3
Peak torque	[Nm]	Up to 9.3
Speed	[rpm]	Up to 2,000
Position sets		63
Linking position sets		Sequential without branching
Motor step angle		1.8° ±5%
Protection class		IP20 (CMMS-ST), IP54 (motor shaft), IP65 (motor housing)

Encoder interfaces

Feedback from motor		Incremental encoder (500 PPR)
Bidirectional encoder interface		Emulated encoder output (incremental) Encoder input (incremental)

Control interfaces

Digital I/O	[V DC]	24 (DO not electrically isolated, DI electrically isolated)
Analog I/O	[V DC]	± 10 (1 AI, 12 bit resolution; 1 AO)
Serial interfaces		RS232, RS485, RS422

Fieldbus communications

	Communication profile	Max. fieldbus transmission rate
CANopen (integrated)	(DS301) FHPP & DSP402	1 Mbit/s
DeviceNet (optional slide-in module)	FHPP	0.5 Mbit/s
Profibus DP (optional slide-in module)	DP-V0/FHPP	12 Mbit/s

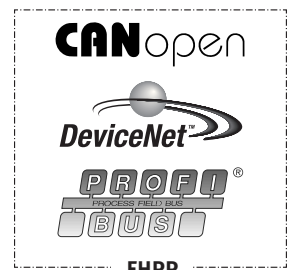
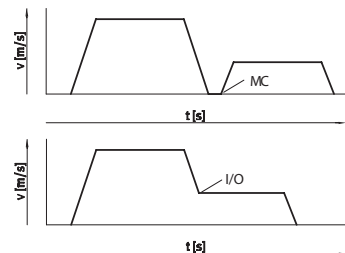
Electrical data

Load supply :	nominal voltage	[V DC]	24 ... 75
	nominal current	[A]	8
	peak current	[A]	12
Logic supply:	nominal voltage	[V DC]	24 ±20%
	nominal current	[A]	0.3
	max. current of DO	[mA]	100

Ordering data

	Part No.	Type
Motor controller CMMS-ST	547 454	CMMS-ST-C8-7

Linking Position Sets



Festo Corporation

For ordering assistance, or to find your nearest Festo Distributor,
Call: 1.800.99.FESTO
Fax: 1.800.96.FESTO
Email: customer.service@us.festo.com
Visit: www.festo.com/us

For technical support,
Call: 1.866.G0.FESTO
Fax: 1.800.96.FESTO
Email: product.support@us.festo.com



Convenient sizing & selection

Intuitive configuration software (FCT)

Seamless integration