

Stepper motors EMMS-ST/ motor controller CMMS-ST



Stepper motor technology in a genuine “Plug & Work” solution package: The single-axis position controller CMMS-ST combined with stepper motors EMMS-ST – for single- and multi-axis handling units with dynamic loads up to 20 kg.

Closed-loop system

The “Servo Light” mode offers a full-feature closed-loop servo system with maximum operational reliability and high dynamism obtained by exploiting the maximum motor characteristics. This differentiates the stepper motor controller CMMS-ST from conventional controllers.

Standard stepper

Alternatively, the CMMS-ST can also be used as an inexpensive open-loop system for stepper motors without encoders. The comprehensive range of functions will appeal strongly to users, as will the optimum price/perform-

ance ratio. This is backed by the seamless FCT software platform and the uniform data profile FHPP.

Stepper motor EMMS-ST

This new stepper motor series combines long service life and full positioning functionality with a low price. The two-phase hybrid stepper motor offers high torque, a high degree of protection and an industrial connector system. A brake and integrated encoder are available as options. The motors are backed by a range of matched gearboxes, available from Festo ex-stock.



Single- and multi-axis systems

Closed-loop included

Price follows function

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Product Short Information

Stepper motors EMMS-ST/ motor controller CMMS-ST

Motor controller CMMS-ST

Functionality

- Automatic motor current reduction
- Active step angle monitoring and resonance suppression
- Automatic triggering of motor brakes
- Concatenation of travel commands
- On-the-fly measurement
- Synchronous operation
- Continuous positioning
- Quick-stop function
- Self-setting step resolution (auto-smoothing)
- Constant step resolution for predictable motor performance

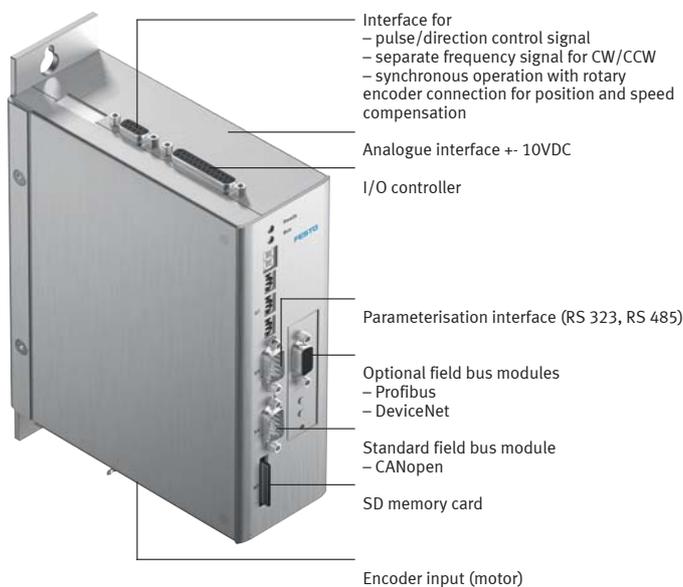
Technical data

- Step resolution: Full resolutions up to 4,000 steps/rev.
- Setpoint specification by frequency signal, which can be used optionally as a
 - pulse and direction signal or
 - separate frequency signal for CW/CCW

- Rated current: 8 amps
- Peak current: 12 amps
- Brake resistance internal: 10 W (rated power)
- Peak power: 500 W
- Power supply: 48 VDC
- SD memory card for parameter storage, including when replacing units
- Digital inputs and outputs, protected against short circuit, overload and back emf

Parameterisation

- Predefined parameter sets for all motor types
- Position, speed and acceleration
- Hardware and software limit switches
- Acceleration ramps
- Parameterisation and configuration via FCT software platform or field bus
- 64 travel commands
- On/off switching behaviour of motor brake can be parameterised



Technical data

Stepper motors EMMS-ST

Holding torque [Nm]:
 0.3/0.75/1.25/2.0/4.5/6.5
 Ratio of flange-mounted gearbox:
 i = 3 / 5
 CE mark

Operating modes: Micro-step
 Mains filter: Integrated

- Options
- Encoder
 - Brake

Degree of protection

- Motor shaft: IP54
- Plug connector/housing IP65
- Step angle : 1.8° ±5%



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