Cannon Automata

Robotic
CNC
3D-Printing

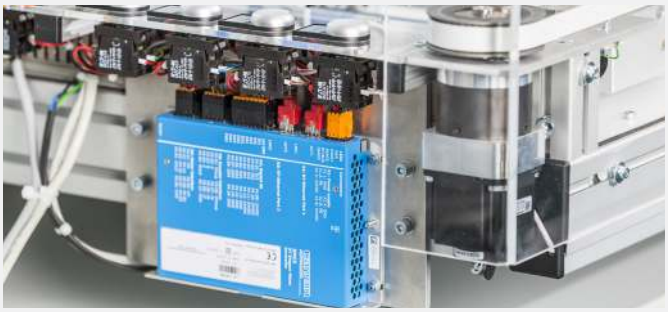
SMC3

RT-Ethernet Stepper Motor Controller

sercos
the automation bus

EtherCAT®

- **Sercos**
  - Drive profile (FSP-Drive)
  - I/O profile (FSP-IO) for onboard I/Os
  - FG-Probe for Touchprobe function
- **EtherCAT**
  - Drive profile (DS-402)



- **Operation modes**
  - Velocity mode
  - Position mode
  - Positioning mode
  - various homing modes
- **Operation with or without encoder**
- **SMC3** has already all I/Os onboard to realize a complete positioning axis (1 x encoder interface, 4 x DI, 4 x DO)

- Sercos® or EtherCAT® drive profile
- perfectly suitable as CNC-/Robot-Axis
- Operation with or without encoder
- Onboard I/Os
- 2-phase stepper motor interface

Stepper motors are ideal for cost-effective implementation of positioning functions. With the positioning mode of the SMC3 stepper motor controller, such functions can now quickly and easily integrated in Sercos or EtherCAT networks - without high programming effort. But also for complex motion control applications, the SMC3 stepper motor controller can be used as a **cost-effective alternative to expensive servo drives**.

In positioning mode the controller (PLC/CNC) just has to set a target position. This position is then approached with programmable velocity and acceleration values autonomously by the SMC3.

In addition to the positioning mode the SMC3 supports cyclic velocity and position set values. All modes can be used with connected or without connected incremental encoder.

The onboard I/Os (4 digital ouputs, 4 digital inputs and an encoder interface) allow the realization of a complete positioning axis with enable and status signals as well as inputs for limit and homing switches.

The stepper motor interface is designed for 2-phase motors with up to 256 microsteps at max. 6A current per phase and 48VDC supply.

Technical Information		SMC3
CPU		32bit CPU
Field busses		**Real-time Ethernet** • Sercos (FSP-Drive, FG-Probe, FSP-IO for onboard-I/Os) • EtherCAT (DS-402)
Stepper motor interface		**2-phase stepper motor** • 8A (peak) current per phase • 48VDC supply • 256 microsteps
Onboard I/Os		• 4 x DigIN (24VDC) • 4 x DigOUT (24VDC/0.5A) • Incremental encoder interface with 5VDC or 24VDC encoder supply
Dimension	H x D x W	180 mm x 117 mm x 29 mm
Power supply		24VDC
Cooling		passive
Enclosure		aluminium/steel
Mounting		wallmount
Operation temperature		0°C ÷ +55°C
Protection class		IP20
Certifications		CE, RoHS

PRODUCTS

Technological components for industrial automation.

- PAC - PROGRAMMABLE AUTOMATION CONTROLLER
- FIELDBUS & INDUSTRIAL ETHERNET
- I/O MODULES
- HMI - HUMAN MACHINE INTERFACE
- AUTOMATION SOFTWARE
- DRIVES

APPLICATIONS

Hardware and software solutions for specific user applications.

- REMOTE MONITORING & ASSISTANCE
- MACHINE CONTROL & PRODUCTION
- ENVIRONMENTAL MONITORING
- MOTION & ROBOTICS
- PREVENTIVE MAINTENANCE
- ENERGY EFFICIENCY

ENGINEERING

Services for engineering projects.

35 years of experience in the automotive, energy, oil & gas and water treatment sectors enable Cannon Automata to present itself as complete and perfect partner for the development of industrial engineering and process projects. Systems are characterized by their high performance, thanks to an approach that is fully oriented to achieve tailored solutions to specific needs.

For the best results in terms of quality and customer satisfaction, Cannon-Automata follows an operative scheme that is widely experienced and successful, from the study to the implementation, and with a constant technical support.

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