

Motion Controller

For Electromagnetic Motors



SMC Hydra

- 2-D vector motion with linear interpolation, independent single-axis motion
- Digital inputs and outputs
- Optional: Encoder-based trigger output
- Optional: Position capture input: Position detection in real time via digital input
- Optional: Dynamic position correction
- Joystick operation via CAN bus

Universal digital motion controller

For DC servo and brushless DC motors (BLDC), linear and torque motors (2 / 3 phases), 2-phase stepper motors. 24 V / 48 V DC output voltage, up to 200 W power per channel. Maximum output current 10 A per phase (effective). Sine-commutated operation. Servo frequency 4 kHz.

Extensive functions, software support

Automatic detection of the motor phase. PID controller for position and velocity. Extensive software support, e.g., for NI LabVIEW, dynamic libraries for Windows and Linux.

Interfaces

Commanding via TCP/IP, RS-232. RM version only: Additional USB. Manual operation with joystick via CAN bus (accessory). Digital inputs and outputs for automation. Optodecoupled inputs, 4 analog outputs.

Factory default options

- DeltaStar und DeltaStar Eco encoder interface modules
Required for control of closed-loop drives (rotation or linear encoder). Differential signal transmission for digital (A/B) or analog (sin/cos) encoder signals, inputs for limit switch signals. Please specify when ordering.
Trigger options with DeltaStar: Trigger outputs, position capture input (position detection in real time via digital input)
Trigger options with DeltaStar Eco: Trigger outputs
- Dynamic position correction
Position deviations for a selected configuration of linear or rotation stages are determined with a highly accurate measuring system and saved in a table of corrections in the controller. Correction is also dynamic. Single-axis mapping, only available as factory default in conjunction with a PI positioning system. Please specify when ordering.

Drawings / Images



U-521, dimensions in mm



SMC Hydra CM, 2-axis motion controller

Order Information

71609600

SMC Hydra CM Motion Controller, 24 V, TCP/IP, RS-232, 2 Achsen, Kompaktgerät

71609601

SMC Hydra TT Motion Controller, 24 V, TCP/IP, RS-232, 2 Achsen, Tischgerät

71609602

SMC Hydra TT Motion Controller, 48 V, TCP/IP, RS-232, 2 Achsen, Tischgerät

71609603

SMC Hydra CM Motion Controller, 48 V, TCP/IP, RS-232, 2 Achsen, Kompaktgerät

71609604

SMC Hydra RM Motion Controller, 24 V, TCP/IP, RS-232, USB, 4 Achsen, 19"-Controller

71609605

SMC Hydra RM Motion Controller, 48 V, TCP/IP, RS-232, USB, 4 Achsen, 19"-Controller

71609626

Netzteil für SMC Hydra CM, 24V, 120 W

71609631

SMC Hydra DeltaStar Encoder-Interface-Modul

71609632

SMC Hydra DeltaStar Eco Encoder-Interface-Modul

71609633

Joystick für SMC Hydra, 2 Achsen

71609635

Triggerkabel für SMC Hydra DeltaStar, Mini-HDMI auf BNC

71609638

SMC Hydra RM Motion Controller, 48 V, TCP/IP, RS-232, USB, 2 Achsen, 19"-Controller

71609644-0000

SMC Hydra Dynamische Positionskorrektur für Lineartische inkl. Vermessung der Achse und Messprotokoll (Laser-Interferometer)

71609644-0001

SMC Hydra Dynamische Positionskorrektur für Rotationstische inkl. Vermessung der Achse und Messprotokoll (Heidenhain RON-905 Master-Encoder)