

CONTROLLERS, SERVO AMPLIFIERS & FREQUENCY CONVERTERS

Drive Positioning and Drive Synchronization

for use in CAN-, EtherCAT-, Profibus- or RS485-Networks

or just for Standalone usage and High-Level Language Programmability!

MACS₄-DSP

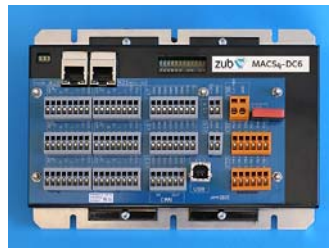
1-, 2-, 3-axis
positioning
and synchronization



- ◆ Free programmable process and motion control unit
- ◆ Multi-axis position regulation & synchronization
- ◆ Standalone usage or part of a PLC / PC network
- ◆ 1 x CAN, 1 x USB, 1 x RS485, Option: **EtherCAT**
- ◆ Analog, RS485, CANopen I/Fs for servo drives / FCs
- ◆ OEM: Customized connectors boards on request!

MACS₄-DC6

6-axis positioning
with integrated
servo amplifiers



- ◆ Free programmable process and motion control unit
- ◆ 6 integrated servo amplifiers (24-48V) for DC motors
- ◆ Standalone usage or part of a PLC / PC network
- ◆ 1 x CAN, 1 x USB, 1 x RS485, Option: **EtherCAT**
- ◆ OEM: Customized connectors boards and power stage design on request!

MACS₃

1-, 2-, 3-axis
positioning
and synchronization



- ◆ Free programmable process and motion control unit
- ◆ Digital position regulation & synchronization
- ◆ Standalone usage or part of a PLC / PC network
- ◆ 2 x CAN, 1 x RS232
- ◆ Analog and CANopen interfaces for servo drives / FCs

DSA

CANopen servo amplifier



- ◆ Digital current, speed & position regulation
- ◆ CANopen DS402 compatible
- ◆ PWM power stage(s) for brush and brushless motors, up to 400 W continuous power
- ◆ OEM: Pre-configuration as an analogue amplifier replacement (autostart and ±10 V command)

DANFOSS

Frequency Converters,
Motion Control Option,
Softstarters



- ◆ Frequency Converters for torque / speed control
- ◆ 1 x USB, 1 x RS485, Options: Profibus, CAN
- ◆ Integrated motion control option MCO305 or multi-axis control unit MACS₄-DSP for position control and drive synchronization

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ZUB CONTROLS: A WIDE RANGE OF APPLICATIONS!

Storage

MACS₄-DSP +
FREQUENCY CONVERTER
or MACS₃ + DSA



- ◆ Cart positioning in high bay warehouse or automated racks (e.g. pharmacy)
- ◆ Positioning with on-the-fly target adaptation
- ◆ Jerk limited ramps for acceleration and deceleration

Positioning

MACS₄-DC6
or MACS₃ + DSA



- ◆ Low cost mechanical stop adjustment
- ◆ X/Y-positioning of probes (e.g. analytical systems)
- ◆ Work-piece and tool positioning in machines

Feeding

MACS₄-DSP +
FREQUENCY CONVERTERS
or SERVO DRIVES



- ◆ Synchronous feeding of components, (e.g. supplement, CDs)
- ◆ Position synchronization using marker correction and signal filtering

Labeling

MACS₄ OEM-DESIGN
or MACS₃ + DSA



- ◆ Synchronization of label ejection and goods
- ◆ Synchronous feeding with marker correction and online CAM profiling

Winding

MACS₄-DSP + DSA
or MACS₃ + DSA



- ◆ Electronic servo traversing gear: Synchronization of the traversing with the speed of the material
- ◆ Tension control of a center winder

Dosing

MACS₄-DC6
or MACS₄ OEM-DESIGN
or MACS₃ + DSA



- ◆ High precision flow control of pumps
- ◆ Flow rate control of analytic and infusion pumps
- ◆ Control of electronic pipet systems

Lifting

MACS₄-DSP +
FREQUENCY CONVERTERS



- ◆ Standalone control of lifting platforms
- ◆ Network-based controls for theatre platform or fly

Many other examples of applications and practical experience can be found on our website www.zub.ch in the section „Application“.