zub machine control AG

zub AG – member of **maxon** motor group – is an internationally active specialist for state-of-the-art drive and control concepts. We develop multi-axis controllers for servo and asynchronous motors and realize innovative products for positioning and synchronization of drives for stand-alone devices as well as for CAN and EtherCAT networked systems. As your engineering partner, we develop exclusive OEM controllers and accompany you through all the phases of complex system realization, from planning, development, to production and beyond.

Generation 5

You don't have to reinvent the wheel - but develop it further!

3-axis scara robot

mobile transport robots with 3 axis

Highly dynamic: MACS5-Compact skips a generation

The MACS5-Compact, the new cost-optimized controller for positioning and synchronizing 1 to 3 axes replaces the successful MACS3: Same width and similar volume with identical connector configuration allow easy replacement in the control cabinet, and all applications can be adapted and operated because there are backwards-compatible. Of course, the MACS5-Compact is as performant as the MACS5 series and therefore much more powerful than the MACS3. With Ethernet, USB and optional EtherCAT, it has more interfaces, additional analogue inputs and an additional encoder.

Each MACS5-Compact controls and regulates the complex and highly dynamic positioning and synchronization of up to 3 axes of servo and asynchronous motors. Interfaces for incremental, SinCos and SSI encoders as well as high-speed latching inputs are already integrated.

Additional axes can be controlled via additional external amplifiers.

This makes the MACS5-Compact ideal for challenging automation tasks, such as fully automated storage and order picking of individual products, in printing and finishing machines for feeding inserts, synchronizing conveyor belts or automating packaging systems. The drives for the various travel and stroke movements are precisely controlled and moved synchronously, position data and travel profile are changed "on the fly" without intermediate stop, several CANopen servo amplifiers are controlled and monitored simultaneously, and the grippers are monitored by means of position and sensorless torque/force control.

Such logic and drive controls can be implemented completely with MACS5-Compact -modules and coupled to higher-level management systems (PLC or host computer) via fieldbus, such as EtherCAT or CAN bus. The realization of multi-axis special systems such as delta robots, portal robots, 3D printing axis systems, mobile robots, automatic door systems, etc. is also conceivable.

The free programmability allows an exact adaptation to specific requirements of machines and devices or allows the flexible extension of the DS402 functionality. High-level language programming with powerful language elements for positioning offers the prerequisites for efficiently realizing different product variants and securing long-term investments with little effort.