

## ServoOne junior – small and full of ideas

### High-performance servocontrollers for the lower power range

The ServoOne junior from LTi DRiVES GmbH is the newest and smallest product in the ServoOne family. Optimized for the lower power output range, it comes with all the technological genes present in the rest of the family.

It effortlessly combines cost-effectiveness, minimal size and maximum functionality. Maximum performance with rated currents of 3.0-8.0 A at 230 V and 2.0-6.5 A at 400 V is offered by a range of three compact designs. Thanks to its 300% overload capacity, the ServoOne junior is ideally suited to highly dynamic motion tasks, particularly with linear motors.

The ServoOne junior is perfect for operation in higher-level CNC control systems with cyclic setpoint input via bus systems. Interpolation values of a path curve are translated with the aid of a wide range of interpolation modes into uniform, high-definition motion. The extensive choice in this regard ranges from linear, through quadratic, to complex cubic spline interpolation methods. And precision, synchronized processing on all axes is implemented as a matter of course. Maximum dynamism and precision path following are ensured by the flexible speed and torque feed-forward. The setpoints required are optionally calculated by interpolation or preset over the bus with up to 48-bit accuracy.

Single-axis motion is implemented with the integrated profile generator. In this, the controller transmits only the driving set. Independent acceleration, deceleration and jerk setting enhances the diversity of choice in this classic point-to-point positioning solution.

Synchronous control of multiple axes is also easily implementable with the ServoOne. High accuracy in motion is attained by the advanced control engineering and high-resolution transfer of setpoint values. Short sampling rates in setpoint coupling provide the ideal solution to real-time requirements.

State-of-the-art EtherCAT or Sercos III communication interfaces, based on the latest real-time Ethernet technology, support the tried and proven CANopen and Sercos II field buses as well as the extensive Motion Control functions of the 'junior'.

The ServoOne-Junior's SIL 3-certified STO functionality means it can be integrated into the machine safety concept as part of the LTi Safe Motion architecture. Combined with the

programmable Safe Monitoring Control (SMC), standard speed-dependent functions and a wide variety of position-dependent function can be safely monitored.

The ServoOne family comprises a range of drive systems with rated currents from 2-450 A. Single-axis drives or multi-axis systems featuring environmentally friendly DC supply units with integrated sinusoidal power system feedback provide the ideal solution to any application.

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