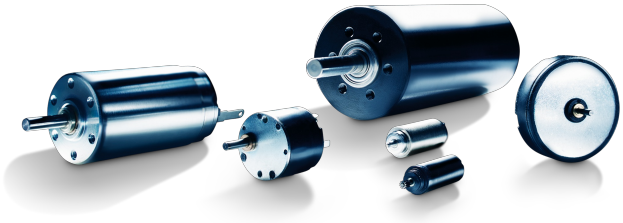
CAN Newsletter Online

SPS 2021

Control and positioning of DC motors

Faulhaber's MC 3001 B and MC 3001 P support the CANopen device profile for drives and motion controllers (CiA 402). The company ist part of the SPS 2021 exhibition (Nuremberg) in hall 4, stand 348.



The motion controllers are dedicated for DC micro-motors, linear DC servo-motors, or brushless DC motors (Source: Faulhaber)

The unhoused motion controllers are available as MC 3001 B (board-to-board connectors) or MC3001P (28-pin plug connector). With 1,4 A in continuous operation and up to 5 A peak current, they are dedicated for control and positioning tasks of DC micro-motors, linear DC servo-motors, or brushless DC motors with lengths of 6 mm to 30 mm.

The controllers are designed for operation as CANopen devices with NMT (network management) server functionality. Via CANopen, they can be combined with a number of higher-level managing systems. Stand-alone operation using integrated sequence programs is possible. The devices support the profile position, profile velocity, and homing operating modes according to the CiA 402 profile. CiA 402 is internationally standardized in IEC 61800-7-2/-3 and is further developed by CAN in Automation (CiA). Controllers' configuration can be performed with the Motion Manager software (version 6.8 and higher). Supported bit-rates (up to 1Mbit/s) and node-IDs are set via the CANopen layer setting services (LSS) as specified in CiA 305. Further, an SDO (service data object) server, four RPDOs (receive process data objects), and four transmit PDOs (TPDOs) with dynamic mapping are provided.

The devices with an overall height of 2,6 mm and a format of e.g. 16 mm x 27 mm (MC 3001 B) are especially suited for installation in space-limited custom applications such as robotics, automation technology, machine construction as well as medical and laboratory technology. The required EMC behavior has been certified by external laboratories. Company's starter kit includes the matching motherboard to start with the development. Up to six different motherboard variants (depending on the used motion controller and motor) are available.

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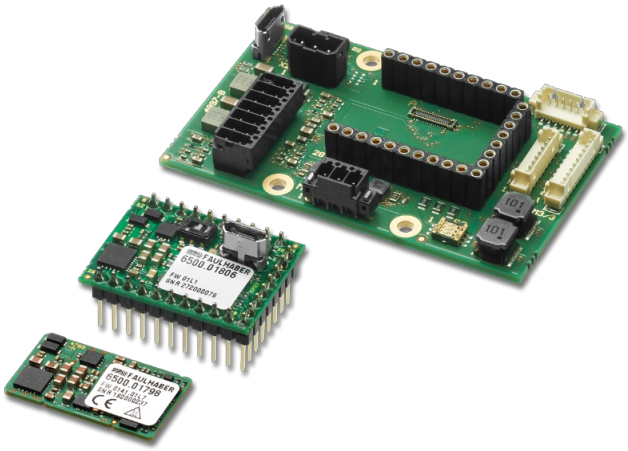

Controllers can be implemented on the matching starter kit motherboard (Source: Faulhaber)