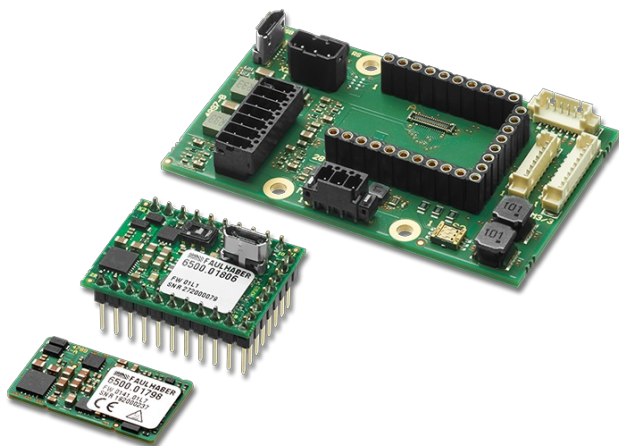


Unhoused drives for space-limited applications

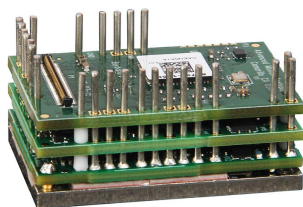
Miniaturized unhoused CANopen motion controllers can be embedded in small motors deployed in robot arms and other compact applications. These are available from diverse manufacturers.



Regarding motherboard connection, the MC 3001 motion controllers are available in two variants (Source: Faulhaber)

FXM060-10-CM (10 A continuous, 20 A peak), and the FXM060-25-CM (25 A continuous, 50 A peak). An incremental encoder is implemented. The drives implement the CANopen device profile for drives and motion control (CiA 402, also standardized in IEC 61800-7-201/-301). Supported operation modes include torque, velocity, and position. The available standard connector options enable to integrate the drives into diverse applications.

The PCB-mount (printed circuit board) servo drives size 50,8 mm x 25,4 mm x 22,1 mm, require a power supply of 10 V_{DC} to 55 V_{DC}, and operate at temperatures from -40 °C to +95 °C. Projected applications are cobots (collaborative robots), AGVs (automated guided vehicles), portable devices, lab and warehouse automation, military equipment, etc. The extended environment drive versions are designed to withstand extreme temperatures, pressures, shocks, vibrations, humidity, dust, dirt, and contamination. The Impact (integrated motion platform and control technology) architecture enables a stacking of selected circuit boards for higher power density.

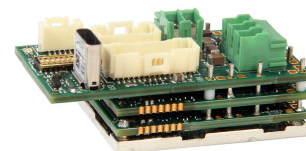


FE060-45C-CM/-EM drives are dedicated for 45 A of continuous current (Source: Advanced Motion Controls)

The company's Flexpro servo drives also include the recently introduced FE060-45C-CM (38,1 mm x 25,4 mm x 11,5 mm) and the FE060-45C-EM (38,1 mm x 25,4 mm x 16 mm) with 45 A of continuous current. In addition to the features and projected applications as shown above, the STO (safe torque off) function is supported. Also available are developer board versions FD060-45C-CM and FD060-45C-EM with large connectors for research, development, and prototyping purposes.

The MC 3001 motion controllers introduced by Faulhaber enable the company's 6-mm to 30-mm DC micromotors, linear DC servomotors, or brushless DC motors to perform control and positioning tasks. The actuators sizing 16 mm x 27 mm x 2,6 mm can be operated with an 1,4-A continuous current and with an up to 5-A peak current. The devices can be plugged into a motherboard via three micro board-to-board connectors (MC 3001 B) or a 28-pin plug connector (MC 3001 P). The motion controllers can be operated via the CANopen network and configured via the Motion Manager software (version 6.8 and higher). After commissioning, they can alternatively be operated in stand-alone mode via integrated sequence programs. The suitable fields of use include robotics, automation technology, machine construction, as well as medical and laboratory technology.

Advanced Motion Controls introduced the Flexpro digital servo drives FXM060-5-CM (5 A continuous, 10 A peak),



The Flexpro drives support the CiA 402 CANopen device profile for drives and motion control (Source: Advanced Motion Controls)

[of](#)