

STEPPER MOTOR CONTROLLER

Processor ups the pace

Systec (Germany) has completely redesigned its Xemo stepper motor controllers. Internal benchmarks have revealed that the processing speed of the processor is about ten times higher than the predecessor model.

(Photo: Systec)

promises the company. The ARM-Cortex-M4-processor on every motherboard of the Xemo R and S controllers provides this. The current Xemo generation can be linked more easily via the now provided Ethernet interface. In addition, EIA-232 and USB 2.0 ports are present. Another feature are two independent CAN interfaces, which provide linking at field level. Optionally, the configuration of a CANopen interface for the integration of external axes with additional power stages without additional axial control is available.

The 32-bit-processor with two cores each of 204 MHz is responsible for the speed of the controllers. Based on this processor, the controller developers designed a completely new control board. One processor core processes basic motion commands, the second core provides motor control functionality. The company's controller developer Klaus-Gerd Schoeler says: "Internal benchmarks have revealed that the processing speed of our new processor is about ten times higher than the predecessor model."

The memory characteristics are extensive as well: 64 KiB S-RAM, 64 KiB ROM, and 1 MiB internal Flash memory. The Flash memory can be rewritten 100 000 times. According to the company, 20 years of data preservation are guaranteed. In addition, 8 MiB SD-RAM are on the board, of which 64 KiB is available for user data and user programs respectively. An additional 23-KiB stack memory is available for runtime data. Systec's CEO Tilmann Wolter is also pleased with "one of the most comprehensive product updates of past years", as he says. And he adds: "Of course, all Drivesets customers will also profit from the new stepper motor controllers as of now. The Ethernet interface in particular has often been subject of interest in past months."

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