EL7051 EtherCAT Terminal supplements compact drive solutions in an I/O terminal format

All-in-one stepper motor terminal permits direct connection of powerful stepper motors up to 8 A

Beckhoff is extending its range of compact Drive Technology even further in the higher performance segment with the development of the EL7051 EtherCAT stepper motor terminal. Stepper motors up to 8 A at a rated voltage of 80 V DC can be directly connected to the EL7051 EtherCAT Terminal. Therefore, it is also possible to drive stepper motors with a higher power rating directly from the I/O system. In combination with the AS1060 stepper motor from Beckhoff, the EL7051 represents an inexpensive small drive solution.

As an addition to the existing EL7031 and EL7041 stepper motor terminals, intended for motors up to 24 V DC and 1.5 A or 50 V DC and 5 A respectively, the new EL7051 is suitable as a complete drive system for motors up to 80 V DC and 8 A. The terminal contains both the outputs for the motor and the inputs for the feedback system. Feedback systems can be eliminated in simple applications, since the terminal has an internal counter.

The pulse-width modulation (PWM) output stages of the EL7051 EtherCAT stepper motor terminal cover a wide voltage and current range. Together with two inputs for limit switches, they are located in the terminal. By setting a few parameters in the object directory, the EL7051 can be adapted to the motor and the application, e.g. via the TwinCAT System Manager. The 64-fold micro-stepping ensures particularly quiet and precise motor operation. Together with the AS1060 stepper motor, the EL7051 represents a complete, compact motion axis. Preferred fields of application for the inexpensive drive solution include, for example, feed axes or simple transport and stroke movements.

A further advantage of the EL7051 is its integration into the EtherCAT Terminal system. This places all EtherCAT characteristics such as high performance, optimum diagnostics, Distributed Clocks functionality, etc. at the user's disposal. Integration into the I/O system simplifies cabling and commissioning considerably and reduces cabinet space requirements and costs.

Beckhoff focuses on modularity and scalable power in compact Drive Technology: various connections in the format of a K-bus or an EtherCAT Terminal (IP 20) support AC and DC motors as well as stepper and servomotors of various performance classes. In addition, the Beckhoff EtherCAT Box modules (IP 67) for stepper and DC motors are available for use outside control cabinets.

Further Information:

www.beckhoff.com/EL7051

www.beckhoff.com/AS1060

Estimated market release:

3rd quarter 2012