For Immediate Release

ESCON Module 24/2 Servo Motor Controller
A miniature controller with maximum functionality.

maxon motor expands its offering of miniaturized controllers with its latest OEM plug-in module. This high-performance 4-quadrant PWM servo motor controller is designed to command permanent-magnet-activated brushed and brushless DC motors with Hall sensors up to 48 Watt continuous output and 144 Watt peak output. Its features include: high usability, exceptional performance and power density in servo motor controller technology. It is unprecedented in functionality, protection, and performance.

In addition, the entire maxon ESCON servo controller line now offers new functionality: an RC servo signal evaluation for speed or current set values, current limiter and offset, or the option to predefine analog speed ramps.

The innovative OEM plug-in module features excellent controller characteristics. The drift-free yet extremely dynamic speed behavior enables speeds up to 150,000 rpm. It provides extensive functionality with free configurable digital and analog inputs/outputs and can be operated in various modes, such as speed controller (closed loop), speed controller (open loop), and current controller. A perfect match for maxon's motor range, the miniaturized ESCON Module 24/2 suits even the highest-demanding applications and most dynamic drive solutions. Plus, it easily integrates into complex applications with little effort.

A detailed Motherboard Design Guide is available for integration to OEM PCBs and a suitable motherboard makes initial commissioning a simple task. This allows the OEM to focus on the development of their own device and simply rely on maxon’s expertise for the motor control part that is provided in the ESCON module.

The compact servo controller is controlled by an analog set value. It can be specified by means of analog voltage, by external potentiometer, by defined value, by means of PWM signal, or with RC servo signal with variable duty cycle. Other key features include the ability to enable or disable the power stage depending on the direction of rotation as well as acceleration and deceleration by employment of defined speed ramps. The speed can be controlled by means of digital incremental encoder (2 channel, with/without Line Driver), DC tacho, or Hall sensors.

Startup in no time

Top performance should not be a matter of trial and error. For that reason the servo controller has been designed to be user friendly and with easy startup functionality. No in-depth knowledge of drive technology is required for operating.

When connected to a PC via a USB port, it can easily and efficiently be parameterized with the graphical user interface «ESCON Studio». A variety of functions and user-friendly wizards as well as a well-designed automated fine-tuning controller procedure assist during commissioning, for configuration of inputs and outputs, and diagnostics.
Protection at its best

The ESCON Module 24/2 features protective circuitry against overcurrent, excess temperature, undervoltage and overvoltage, voltage transients and short-circuits in the motor cable. It also is equipped with protected digital inputs and outputs and adjustable current limitation to protect motor and load. Motor current and actual motor shaft speed can be monitored by means of analog output voltage.

Pure flexibility and top efficiency

The wide range of both input voltage and operating temperature of +60°C (140°F) and a surplus derating allow flexible use in almost all drive solutions, such as small electronic appliances and equipment engineering or robotics. With its exceptional efficiency of 92% and miniature dimensions, the ESCON Module 24/2 is a number one choice for mobile, highly efficient yet consumption-optimized applications.

For more information on the ESCON servo motor controller range, visit http://escon.maxonmotor.com.