

## ESCON Module 24/2 Servo Motor Controller

Mini from outside – maxi from within.

As addition to the successful ESCON servo controller family, maxon motor presents another miniaturized, postage stamp-sized OEM plug-in module. The high-performance 4-quadrant PWM servo motor controller is designed to command permanent-magnet-activated brushed DC motors and BLDC motors (brushless DC motors, so-called EC motors) with Hall sensors up to 48 Watt continuous output and 144 Watt peak output. As part of the ESCON family it stands for high usability, exceptional performance, and unprecedented power density in servo motor controller technology. More comfort, functionality, protection, and performance can hardly be attained.

**New additional functionality, such as RC servo signal evaluation for speed or current set values, current limiter offset, or the option to predefine analog speed ramps further enrich the entire ESCON servo controller family.**

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. As 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.

At the same time it easily integrates into complex applications with little effort. A distinctive benefit: Customers can fully focus on their main task; the development of their own device. For the motor control part they can make use of maxon motor's vast drive know-how already built into the ESCON Module. A detailed Motherboard Design Guide is available for integration to OEM PCBs and a suitable motherboard makes initial commissioning a simple task.

The compact servo controller is controlled by an analog set value. It can be specified by means of analog voltage, by external or internal potentiometer, by defined value, by means of PWM signal, or with RC servo signal with variable duty cycle. Other interesting features are for instance 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 tachometer, 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 specifically with easy startup and user-friendliness in mind without requiring in-depth knowledge of drive technology.

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>.



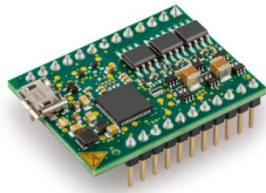
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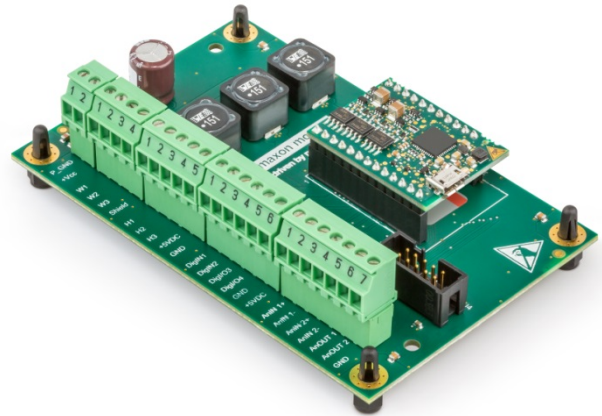
The media release is available as download on the Internet: [www.maxonmotor.com](http://www.maxonmotor.com)

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*ESCON Module 24/2  
35.6 x 26.7 x 12.7 mm (1.4 x 1.0 x 0.5 inches)  
Digital OEM servo motor controller for brushed DC  
motors and BLDC motors (brushless DC motors)  
with Hall sensors up to 144 Watt  
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*ESCON Module 24/2 Motherboard with attached  
ESCON Module 24/2  
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