ESCON 50/5
Straightforward commissioning – excellent controller characteristics – peak performance.

Following the ESCON’s launch during fall 2011, maxon motor’s new series of servo controllers welcomes its second family member; the ESCON 50/5. As the little brother, it captivates by user-friendliness and outstanding performance. The compact, powerful 4-quadrant PWM servo controller offers efficient control of permanent-magnet activated brushed DC motors and brushless EC motors up to approximately 250 Watts. As part of the ESCON family, it is the embodiment of unrivaled power density in the field of servo controller technology. More convenience, functionality, protection, or power are hardly possible.

The ESCON 50/5 has excellent control properties and a very fast digital current controller with an enormous bandwidth for optimal motor current/torque control. The drift-free yet extremely dynamic speed behavior enables a speed range of 0 to 150,000 rpm. The technological masterpiece provides a wide range of functions with fully configurable digital and analog inputs and outputs and can be run in various operating modes (speed controller (closed loop), speed controller (open loop), current controller). It is perfectly matched to maxon's range of motors and thus allows dynamic drive solutions that meet the highest demands.

The compact servo controller is controlled by an analog set value specified via analog voltage, external or internal potentiometer, fixed value, or by means of PWM 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, or to use speed ramps for acceleration and deceleration. The speed can be regulated by digital incremental encoder (2-channel, with/without line driver), DC tacho, or with Hall sensors.

Startup made easy

Top performance should not be a matter of practice makes perfect. Therefore the servo controller has been designed specifically with easy startup and user-friendliness in mind. Hence, no in-depth knowledge of drive technology is required. When the servo controller is connected to a PC via a USB port, it can easily and efficiently be configured with the graphical user interface «ESCON Studio». A large variety of functions, user-friendly software wizards, and a well-designed automatic procedure to fine-tune the controller come in handy during startup and configuration of the inputs and outputs, for monitoring, data recording, and diagnostics. As far as the hardware is concerned, the ESCON 50/5 comes fully equipped with everything that is needed. For example, no additional external filters or motor chokes are required.

Top-notch protection

The ESCON 50/5 features protective circuits against overcurrent, excess temperature, undervoltage and overvoltage, against voltage transients and short-circuits in the motor cable. Furthermore it is equipped with protected digital inputs and outputs and adjustable current limitation to protect motor and load. The motor current and the actual speed of the motor shaft can be monitored by means of the analog output voltage.

No-compromise flexibility and efficiency

The wide range for input voltage and operating temperature allows a flexible use in almost all drive applications, in automation technology, in machine manufacturing and equipment engineering, and in mecha-
tronics. With its exceptional efficiency of 95%, the inexpensive ESCON 50/5 is a first-class choice for mobile, highly efficient yet consumption-optimized applications.

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

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ESCON 50/5 – digital servo controller for brushed DC motors and brushless EC motors with Hall sensors up to approx. 250 Watts