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## Five innovations from maxon for SPS 2023

**Drive specialist, maxon, is launching five exciting new products at the exhibition in Nuremberg. Among the highlights are the IDX 56 industrial motors combined with angular gearheads and absolute encoders. maxon is also introducing the ESCON2 Module 60/30, a next-generation servo controller featuring the latest technology. Another notable innovation is a sterilizable and high-torque version of the configurable GPX HP gearhead. Rounding off the range of new products is the expanded EC frameless DT motor portfolio and the TSX RIO optical encoder, which is now also available for maxon's EC-i 40 and EC-i 52 motors.**

### **IDX 56 drive with GB12 gearhead and ENX 22 EMT encoder**

The ENX 22 EMT integrated multi-turn absolute encoder provides the IDX industrial motors with a memory function, so to speak. Even when the power supply is switched off, the battery-free encoder retains its position in memory and retrieves it after switch-on without the need for a new homing procedure. The encoder offers a multi-turn resolution of 16 bits and a single-turn resolution of 17 bits. Combined with the GB12 angular gearhead from Parvalux, it is a powerhouse offering continuous torque of up to 30 Nm or peak torque of 48 Nm.

### **ESCON2 Module 60/30 servo controller**

The ESCON2 Module 60/30 is the first version of the brand-new maxon ESCON2 family of servo controllers. This is a next-generation product with a constant output power of up to 1,800 watts, CAN bus interface, I/O control, and field-oriented control (FOC). Thanks to high power density, various feedback options, and control interfaces, it enables sophisticated and user-friendly motion control.

The module is also available as the ESCON2 Compact 60/30, a unit with standard industrial connectors that is immediately ready for use. The new Motion Studio also offers customers even easier configuration and automatic tuning of all maxon controls.

### **Sterilizable GPX HP gearheads**

GPX HP STES gearheads are the latest additions to maxon's sterilizable products. Available in 16 mm and 22 mm sizes and equipped with a seal system, these gearheads can transmit higher torques than the sterilizable gearheads currently available. This makes them the perfect complement to all high-torque and sterilizable ECX motors. These combinations open up new possibilities, particularly in the areas of surgical power tools and other surgical applications.

## TSX RIO optical encoder

For maximum positioning accuracy, maxon is launching the new TSX RIO optical encoder, which can be combined with maxon's EC-i 40 and EC-i 52 motors. The encoder is protected by a 40 mm housing and is available in two versions: incremental with a resolution of 524,288 counts per turn and absolute with a resolution of 21 bits.

## Expansion of the Dynamic Torque frameless platform

Following the successful launch of the EC frameless DT motors with diameters of 50 mm and 85 mm, maxon is expanding the platform to include 38 mm and 65 mm diameters. The dynamic drives are supplied without bearings and are ideal for compact integration directly in the application. With continuous torques of up to 200 mNm or 1.2 Nm, these powerful drive systems are ideal for robotics applications. If required, the drives can be equipped with a TSX MAG encoder, which offers a resolution of up to 2,560 counts per turn.

maxon will be presenting these new products at SPS in Nuremberg from November 14 to 16, 2023.

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Figure: On the left is the IDX 56 with the GB12 gearhead from Parvalux. On the right is a servo controller with the new ESCON2 Module Compact 60/30.

## maxon: The Swiss specialist for quality drives

maxon is a developer and manufacturer of brushed and brushless DC motors, as well as gearheads, encoders, controllers, and entire mechatronic systems. maxon drives are used wherever the requirements are particularly high: in NASA's Mars rovers, in surgical power tools, in humanoid robots, and in precision industrial applications, for example. To maintain its leadership in this demanding market, the company invests a considerable share of its annual revenue in research and development. Worldwide, the maxon Group has more than 3000 employees at nine production sites and is represented by sales companies in more than 30 countries.