

Industrial design and decentralized intelligence for output ratings between 25 W and 335 W  $\,$ 

# Small servo drive system further expanded

WITTENSTEIN cyber motor GmbH is set to unveil the expanded toolkit for small servo drives – the cyber® dynamic line in combination with the cyber® simco line – at the upcoming SPS IPC DRIVES 2018. All industrial grade small servo motors in the cyber® dynamic line in the standard housing, the stainless steel version or the Hygienic Design version are available in four different sizes for output ratings between 25 and 335 watts. When teamed up with the servo drives in the cyber® simco line, they make a perfect couple for solving complex motion tasks.

The industrial grade small servo motors can be combined with planetary gearboxes with between one and three stages for converting up to 12 Nm of torque. They also ship with several innovative features such as hybrid single-cable technology and a miniaturized, battery-free and gearless multiturn encoder. In the actuator versions with an integrated screw the servo motor, ball screw drive, linear guide and encoder system form a closed, highly integrated and ready-to-install unit. The real-time capable servo amplifiers in the cyber<sup>®</sup> simco line impress with high-resolution torque control and further improved dynamics in the current control loop. Their decentralized intelligence permits autonomous positioning regardless of the control system. At the same time, they provide a high degree of connectivity because several different fieldbus interfaces are available - CANopen, EtherCAT, PROFINET RT/IRT, EtherNet/IP or Sercos III - while the integrated safety functionality (STO) ensures the highest levels of safety to SIL3 and PL e.

Single-source small servo drive systems with no interface risks, tailored to individual requirements: more than 12,000 different motorcontroller combinations can now be configured based on the modular November 2018

WITTENSTEIN develops customized products, systems and solutions for highly dynamic motion, maximumprecise positioning and smart networking for mechatronic drive technology.



Industrial design and decentralized intelligence: the cyber® dynamic line

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system. A whole range of tasks can thus be handled in a future-proof way – adhering and dispensing, filling, positioning of small parts as well as positioning, joining and bending during machining operations or automated gripping – especially when maximum precision and highly flexible motions are vital.

### Servo technology replaces pneumatics: Technology shift means more performance

The small servo drive toolkit from WITTENSTEIN cyber motor paves the way for solutions which, apart from maximum dynamics and precision for positioning tasks, also allow sensitively and flexibly adaptable kinematic process control - without any retooling on the machine. This represents a clear advantage compared to pneumatics based drive technology, where only limited precision and flexibility can be achieved with the pneumatic cylinders, leading to restrictions in terms of motion control. The servo technology of the cyber® dynamic and cyber<sup>®</sup> simco lines also has another benefit: complex motion profiles can be either stroke or force optimized, even in processes with short cycle times. Finally, servo scores with lower operating costs: it is far quieter, more energy efficient and more economical than pneumatic cylinders - compressed air, in particular, is expensive. What's more, it is maintenance-free and the risk of leaks normally associated with pneumatics is eliminated along with the resulting machine downtime.

## Solutions for demanding applications – sights set on new challenges

With its small servo drive toolkit, WITTENSTEIN cyber motor provides solutions for a whole series of demanding tasks such as precision dispensing of reactive resins, flexible control of robot gripping elements or highly precise motion control for the micro assembly of miniature screws. The now complete toolkit already has its sights set on new challenges in a variety of industries like packaging or industrial automation.

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### 01-wcm-kleinantriebssystem

When teamed up with the servo drives in the cyber<sup>®</sup> simco line, they make a perfect couple for solving complex motion tasks.



### **02-wcm-kleinantriebssystem-familienbild-cyber-simco-line** The small servo drive system has multiple interfaces for maximum flexibility.



**03-wcm-kleinantriebssystem-familienbild-cyber-dynamic-line** The small servo motors in the cyber<sup>®</sup> dynamic line are offered in a rugged stainless steel housing with various diameters and are characterized by high torque density.



### 04-wcm- kleinantriebssystems-familienbild-cyber dynamic actuators-L

All variants of the small servo motors with integrated screw enable highly optimized mounting solutions.

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### 05-wcm- kleinantriebssystems-produktbild-inox

The Hygienic Design solution also opens up applications in the wet areas of manufacturing, packing, filling and bottling plants for food and beverage products.



### 6-wcm- kleinantriebssystems-schnittbild-cyber dynamic actuators-L

In the actuator versions with an integrated screw the servo motor, ball screw drive, linear guide and encoder system form a closed, highly integrated and ready-to-install unit.

Texts and photographs in printable quality can be downloaded from presse.wittenstein.de.

### WITTENSTEIN SE - one with the future

With around 2600 employees worldwide and sales of €385 million in 2017/18, WITTENSTEIN SE enjoys an impeccable reputation for innovation, precision and excellence in the field of mechatronic drive technology – not just in Germany but internationally. The group comprises six pacesetting Business Units with separate subsidiaries for servo gearboxes, servo actuator systems, medical technology, miniature servo units, innovative gearing technology, rotary and linear actuator systems, nano technology and electronic and software components for drive technologies. Through its 60 or so subsidiaries and agents in approximately 40 countries, WITTENSTEIN SE (www.wittenstein.de) is additionally represented in all the world's major technology and sales markets.

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