



## New drive system for AGVs makes everything simple

The cyber® iTAS® system 2 from WITTENSTEIN cyber motor is a completely redesigned, compact servo drive system for automated guided vehicles (AGVs), autonomous mobile robots (AMRs) and other mobile platforms. It consists of a safety certified servo drive from the cyber® simco® drive 2 series as well as a compact and high-load wheel actuator in the form of the cyber® TAS actuator 2. This differential drive system convinces with an end-to-end industrial concept that will greatly simplify vehicle development, design and construction in the long term along with operation and servicing.

It combines a lean and integration-friendly safety architecture with maximum power density, giving the vehicles a decisive gain in performance and increasing productivity.

### Industrial simplicity and robustness mean optimal availability

The cyber® iTAS® system 2 has an industrial system design which is both integration-friendly and robust. The wheel actuator of the cyber® iTAS® system 2 is only 180 mm high and – mainly by integrating the gearbox into the wheel geometry – achieves an overall length of just 230 mm. It offers a payload of up to 750 kg per wheel and is designed for vehicle masses between one and three tons, so that the drive system is suitable for AGVs with limited mounting space under the body. Furthermore, the wheel actuators of a differential drive can be assembled back-to-back to save space and, if required, rotated axially by 90°. The compact servo drive additionally has IP65 protection, meaning it is protected against dust and moisture and can therefore be flexibly placed in the immediate vicinity of the drive, with the result that not much wiring is needed.

The electrical connection between the wheel actuator and the cyber® simco® drive 2 servo drive is a simple matter using standard industrial M12 connectors and ring cable lugs. Power and logic are supplied via a wide voltage range input of 12 to 60 VDC. The servo drive has both a multi-Ethernet and a CANopen interface to ensure straightforward connection to different control environments.

April 2023

WITTENSTEIN SE develops customized products, systems and solutions for highly dynamic motion, maximum-precise positioning and smart networking for mechatronic drive technology.



cyber® iTAS® system 2 – the new AGV drive system from WITTENSTEIN

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### Next-level safety architecture: smart, lean, safe

The integrated safety architecture, which was specifically designed for AGVs, AMRs and other mobile platforms, is a particular highlight of the cyber® iTAS® system 2. It requires fewer cables and connectors, fewer interfaces, components and modules and reduces assembly and documentation effort – without in any way compromising safe AGV and AMR operation.

Even the basic version of the servo drive has a two-channel STO (Safe Torque Off) function. Safe Brake Control (SBC) and Safe Position (SP) safety functions as well as an emulation for the safety encoder in the wheel actuator can be optionally integrated. Overall, the cyber® iTAS® system 2 meets SIL 2 and PL d requirements – as stipulated by the majority of vehicle manufacturers and operators.

➤ **Link to product page:**

<https://cyber-motor.wittenstein.de/en-en/products/cyber-itas-system-2/>

**Pictures:** (Picture source: WITTENSTEIN SE)



#### **01-wittenstein-fts-antriebssystem**

The cyber® iTAS® system 2 is an AGV drive system combining a lean and integration-friendly safety architecture with maximum power density, giving the vehicles a decisive gain in performance and increasing productivity.

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### **02-wittenstein-fts-antriebssystem**

The cyber® iAS® system 2 drive system for AGVs enables high-performance differential drives to be implemented with only 180 mm of mounting space under the body, vehicle widths of just 460 mm and vehicle masses between 1 and 3 tons.

Texts and photographs in printable quality can be downloaded from [presse.wittenstein.de](https://presse.wittenstein.de)

### **WITTENSTEIN – one with the future**

With around 2800 employees worldwide and sales of €461 million in 2021/22, WITTENSTEIN SE enjoys an impeccable reputation for innovation, precision and excellence in the field of cybertronic motion – not just in Germany but internationally. The group possesses exceptional expertise for the mastery and further development of all technologies relevant to mechatronic drives and comprises six innovative Strategic Business Divisions. These develop, produce and sell products such as high-precision servo drives and linear systems, servo systems and motors as well as cybertronic drive systems for many areas of application including machine and plant construction, aerospace or oil and gas exploration. Nanotechnology and software components round off the portfolio. With 25 sites in more than 45 countries, the WITTENSTEIN group ([www.wittenstein.de](https://www.wittenstein.de)) is represented in all major technology and sales markets.

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