

Drive mechatronization for use in aviation

Diehl Aviation and WITTENSTEIN share a technological vision

Partners WITTENSTEIN motion control and tech company Diehl Aviation are forging ahead with the development of innovative technical aviation solutions for active sidesticks and Smart Actuators for fly-by-wire solutions in combination with flight control computers from Diehl Aviation. They presented their latest example – a fully electric Flight Control Demonstrator, combining integrated electronics from Diehl with maximum precision mechatronics from WITTENSTEIN – at the Paris Air Show.

One of the hottest topics at the trade fair in Paris was the growing importance of mechatronic drive systems, which can be used as an alternative to hydraulic systems in an increasing number of applications, or can even pave the way for brand new applications. Moreover, the market is increasingly demanding complete systems. "The aviation industry is undergoing a transformation. Our cockpit control and electromechanical actuator divisions are also repeatedly facing new challenges, and Diehl Aviation and WITTENSTEIN motion control are responding to these with innovative system solutions," declares Dr. Mark Eikötter, Managing Director of WITTENSTEIN motion control GmbH. "The synergy between the specialist technological capabilities and existing networks of Diehl Aviation and WITTENSTEIN motion control is opening up new opportunities in aviation for both companies," he adds.

In their work together, Diehl Aviation and WITTENSTEIN motion control are pursuing a shared technological vision that will enable them to respond proactively and flexibly to future market conditions. "With Diehl, we are demonstrating how WITTENSTEIN is helping to shape cutting-edge technologies for electric flight control," says Dr. Bertram Hoffmann, CEO of WITTENSTEIN SE.

The best example of this successful partnership is the Demonstrator that was exhibited in Paris. It uses an electric fly-by-wire control loop to translate inputs by the pilot into the movement of control surfaces. The jointly developed complete system comprises a flight control stick as the pilot input unit, with integrated sensors from WITTENSTEIN, a high-performance flight control computer from Diehl Aviation for real-time control and processing, an

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



WITTENSTEIN and Diehl Aviation – Joint trade show exhibit

WITTENSTEIN SE

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Contact: Sabine Maier Trade Press Officer | Deputy Press Officer Phone +49 7931 493-10399 Email sabine.maier@wittenstein.de electromechanical Smart Actuator from WITTENSTEIN motion control – available in various performance classes – with integrated sensors, power electronics and diagnostic functions, plus a mechanical termination element for visualizing the movement of the control surface.

This fully electric flight control system is a prime example of the potential that lies in the joint development of innovative solutions encompassing both electric and mechatronic drive systems.

Picture:



wittenstein-diehl.jpg

Dr. Bertram Hoffmann, CEO of WITTENSTEIN SE (3rd from right) and Dr. Mark Eikötter, Managing Director of WITTENSTEIN motion control GmbH (far right), join Florian Maier, CEO of DIEHL Aerospace (4th from left) at the Paris Air Show 2025 to present a shared technological vision.

(Source: © Diehl Aviation)

Texts and photographs in printable quality can be downloaded from https://www.wittenstein.de/en-en/company/press/

WITTENSTEIN - one with the future

With around 2800 employees worldwide and sales of €498 million in 2023/24,
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. We 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) is represented in all major technology
and sales markets.

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