

## Electronics for complex drive solutions

Intelligent
One supplier



## Innovation & Expertise

As a specialist for highly efficient and compact drive systems offering the maximum power density, **WITTENSTEIN offers a unique service:** we put our heads together with you to develop products that are perfectly aligned to your individual needs. Our experts are at hand to provide comprehensive and competent support – from the initial idea to the standard product. We have a reputation for reliable, intelligent drive systems that are simple and intuitive to operate.

Our deep knowledge and a rich body of experience combine with creativity and a pioneering spirit as the key to your project's success. Close collaboration between our specialists and yours is an intrinsic part of our philosophy.



Sensorless drive electronics for efficient machining processes

## Mechatronic Drive Systems

### from a single supplier

As a subsidiary of WITTENSTEIN AG, we have set ourselves the goal of aligning our products and services as closely as possible to each customer's individual requirements:

- · Drives with high stator frequencies (high-speed and multi-pole motors)
- · Safety-critical drives (SIL and ASIL)
- · Sensorless controlled drive systems
- · High power and torque density

We develop mechatronic drive solutions that enable our clients to offer unique attributes within their respective markets. As an active member of various professional associations, we are regularly involved in pioneering research projects.







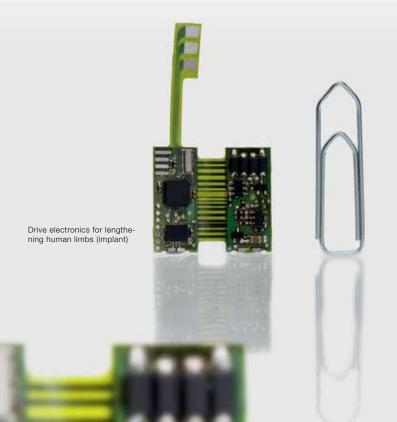




# Tailor made Drive Solutions

Our intelligent software and electronic components are exposed to **extreme ambient conditions**, for example several miles deep inside the earth, high up in space or in the human body. Our consistent ap-

plication of a modular design principle facilitates a very short **time to market** and generates crucial advantages for customers in their chosen market segments.



### Services & Competencies

#### Customized drive solutions

for highly complex tasks

Not every drive task can be solved using standard products. Are you seeking a partner capable of providing competent and prompt support as well as a drive solution fine-tuned to your individual specifications?

If so, we invite you to try out the made-to-measure solutions from our "mechatronic building block system":

- · Specific housings and connections
- Cutting edge control concepts to boost drive performance
- · Wide field weakened operating region (up to 1:4)
- · Intelligent derating
- · Torque prediction
- · Voltages from 12 V to 800 V
- · Phase current outputs up to 800 A
- · Analogue and digital I/Os
- · Fieldbus connection





Please don't hesitate to contact us for more information! You can reach us as follows: Phone +49 7931 493-0 or

info@wittenstein-electronics.de



We can call on a team of experienced and highly qualified engineers to deliver **innovative and customized** mechatronic drive solutions. Our development and production processes meet highest quality standards.

#### Consulting on drive systems

Feasibility analyses / concept studies



Hardware and software development





100 kW

Small to mediumsized series

Test models, prototypes

Trial runs,

product approvals

Component development



Traction drive for an electric commercial vehicle

## Our Product Strategy

#### MINI High Integrity Design

- · **M**iniaturization
- · Integration
- · **N**etwork
- · Intelligence
- · High reliability
- Use in adverse environmental conditions (temperature, vibration, pressure)



Miniaturized 12-bit position encoder







#### electronics

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#### Our technology partners:













WITTENSTEIN – being one with the future www.wittenstein-electronics.com