

kumkeo



Application Story

netX 90

Product Development Based on the netX 90

The engineering firm kumkeo GmbH is one of the first companies to rely on the netX 90, the world's smallest multi-protocol chip from Hilscher, for the development of innovative products

To develop its first own product, the engineering firm kumkeo GmbH chose the world's smallest multiprotocol chip from Hilscher, the netX 90.

The requirements for the desired solution were clear to the customers from the wind energy sector: two rotary encoders of a wind turbine provided their data via a BiSS safety interface, while the higher-level controller expected the measurement data to be provided via PROFINET and PROFIsafe. A reliable and, above all, secure protocol converter had to be developed to convert the data received from the sensors to a signal expected by the controller.

kumkeo developed a series production-ready product, the BiSS Safety 24 Volt > PROFINET/ PROFIsafe protocol converter in a record time of just nine months. The protocol converter supplies two BiSS safety sensors with 24 volts and reliably reads out their values. The data obtained as a result, based on the netX 90, is made available to the safety controller via PROFINET/ PROFIsafe.

One further hallmark of the netX 90 SoC is its multi-protocol capability. This flexibility enables the engineering firm to develop further customized versions of the protocol converter as well as other products within a short space of time.

„We were able to put our first protocol converter into series production in a record time of just nine months based on the netX 90 as a certified product. The multi-protocol capability of the netX 90 allows further products and variants of the converter to be developed quickly. The decision to opt for the netX 90 proved to be the right one for us.“

Sven Tanneberger
Head of Projects & Co-Founder of kumkeo GmbH



Benefits of kumkeo's Protocol Converter:

- Short development cycles thanks to an adaptable platform
- Maintenance-free
- Designed for continuous operation
- Mounted on top-hat rail (DIN rail)
- Indication of the system and communication status via LED
- Optional: integrated power supply for sensors and actuators
- Optional: hardened IP67 version for outdoor use

The World's Smallest Industrial Multi-protocol Chip

The appropriate ASIC for every application, the netX product family from Hilscher ranges from highly integrated and energy-efficient multi-protocol applications to high-performance master solutions. The netX 90 is Hilscher's latest network controller with slave function:



- Smallest multi-protocol SoC with additional Cortex-M4 application processor
- Built-in security features for secure field and cloud connectivity
- Supports all industrial Ethernet, fieldbus, and IIoT standards
- Energy-efficient SoC with the lowest power loss

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About kumkeo

- Founded in 2009
- 85 Employees
- Annual sales of EUR 8.2 million in 2021
- DIN EN ISO 9001 and EN9100 certified
- Member of the EtherCAT Technology Group, PROFIBUS User Organization (PNO), DGLR, FED and National Instruments Alliance Partner

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kumkeo GmbH is an engineering firm with consulting expertise as well as in-house product development. With practical concepts, the company offers support in project planning as well as in all phases of the implementation. The key areas of expertise include:

- Software and firmware development
- Hardware development
- Software and system test
- Qualification, verification, validation and certification
- Obsolescence management
- Project and quality management

The solution capabilities of the engineering firm also flow into the development of innovative measurement, control and regulation technology products.

Well-known companies of the renewable energies, laboratory and medical technology, semi-conductor and defense as well as aerospace industries appreciate the longstanding and cross-sector expertise.

For more information about kumkeo, please visit www.kumkeo.de/en/
For more information about the netX technology, please visit www.hilscher.com

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