CAN *Newsletter Online*

Company portrait: Bürkert & CANopen

This article, as the first of its kind, presents a company, which enables CANopen communication for all of its interconnectable products.

(Source: Bùˆrkert)

The complete article is published in the [June issue]() *of the CAN Newsletter magazine 2021. This is just an excerpt.*

Founded in 1946 as a family business and headquartered in Ingelfingen (Germany), Bùˆrkert employs more than 2500 persons in 36 countries. Round about 1600 employees are working in Germany. The five system houses, providing complete system solutions and the related services, are located in Germany (3), USA (1), and China (1). The company's products are manufactured at five sites in Germany and France. Ca. 8,4 % of the stuff are working in the area of R&D (research and development). The most part of the manufactured products (more than 70 %) is sold outside of Germany.

The company offers products and complete customized solutions for fluid control systems. Such systems include devices for process automation, analysis, flow, pressure, level, and temperature control, as well as for dosing, and filtration. Networking of the devices via CANopen (and other net- works) enables control, monitoring, analyzation, and maintenance of the processes. Using the EDIP (efficient device integration platform) devices can be networked and operated with the Bùˆrkert Communicator software.

The company's portfolio includes solutions for water and gas industries, as well as for industries with high hygienic requirements. Systems handling the flow in microliters (e.g. dental chair control unit) are offered as well. Water analysis systems, medical and laboratory equipment, food and beverage, are only few application area examples.

Philosophy

Bùˆrkert acts according to the company's brand values: courage, experience, and closeness. The experienced experts are perpetually sharing and building their knowledge base internally. Closeness is more than just a personal cooperation while supplying a product and customer services. Closeness creates trust and builds partnerships. Courage can best emerge with the backing of solid experience and trusted individuals. The company therefore places strong emphasis on building long-term partnerships, both internally with colleagues and externally with customers. This is about looking to the future, anticipating customer needs, seeing the possibilities, and challenging the status quo.

Q & A with the company's experts

CAN Newsletter: Why do you rely on CANopen?

Ralf Schmòˆtzer: The CAN bus is very robust and already integrated in the most micro-controllers. In combination with the CANopen higher-layer protocol, we have a real-time capable communication network that meets all the company's requirements. These properties offer ideal conditions for connecting devices to each other and to the control systems. CANopen has established itself as the standard interface for our devices. All interconnectable Bùˆrkert devices are equipped with a CANopen interface, which enables us to configure the devices in production but also in the field by using our configuration tool. With the Communicator tool, a central access to all device data and parameters is made possible. In addition, the values can be brought into a relation to each other with various *visualization options such as a graph.*

Water analysis systems, medical and laboratory equipment, food and beverage, are only few application area examples (Source: Bùˆrkert)

CAN Newsletter: How do customers network their CANopen devices?

Ralf Schmòˆtzer: Many customers integrate the devices directly into their CANopen-capable PLCs (programmable logic controllers) or expansion modules. But there is also a large group of customers who rely on protocols such as Profinet, EthernetIP, ModbusTCP, CC-Link, Profibus, or Ethercat. Here we also have a solution named EDIP (efficient device integration platform). With this system, the customer forms a CANopen sub-network and only communicates the parameters and process data relevant to their application via a CANopen-to-Ethernet gateway to the higher-level PLC (programmable logic controller). The whole chain can be configured with the Communicator tool without having in-depth technical knowledge of the respective protocols. The result is a configured

CANopen network and a generated device description file for the target system. In the Profinet example, this would be a GSDML file that represents all CANopen objects with the configured object names. This procedure saves time when engineering the PLC, as all physical functions are represented by a device with application-specific names. Furthermore, the EDIP platform offers the customer the option for installation of additional functions such as displays or OPCUA (open platform communications unified architecture) communication in parallel. The modules are optionally available for the control cabinet or as IP67-protected versions for the field installation. Additional use of I/O modules enables collection of non-digital signals in the field and transmission of them to the PLC via the gateway.

If you would like to read the full article with the company portrait and Q&A of Bürkert, you can [download](#) *it free of charge or you* [download the entire magazine](#).

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