



Press Release

Digital Twins in the process industry: fluidics specialist Bürkert expands collaboration with Ascon Systems

Stuttgart / Ingelfingen, November 4, 2024 – Bürkert Fluid Control Systems, a leading global supplier of measurement and control technology for fluids and gases, has been working with software-defined solutions from Ascon Systems, a deep-tech specialist for process automation, since 2021. Digital twins from Ascon Systems are now also being used at Bürkert. They increase flexibility and efficiency in various applications of Bürkert’s customers because they store, provide and reuse process data in a contextualised manner independently of hardware, therefore optimising the control of the often complex fluidics technology. At the SPS trade fair in Nuremberg (12 to 14 November 2024), Bürkert and Ascon Systems will demonstrate the interaction of the technologies and show the potential.

Fluidics technology is precision work. It is used as a key technology in many sectors of industry whenever the flow of liquids or gases needs to be controlled. Applications can be found in the pharmaceutical, chemical, consumer goods and food industries and are increasingly common in areas of green engineering, such as fuel cell technology or bioreactors. The challenge in these systems is to deliver the exact amount of fluid in a precisely defined time and speed. Both the hardware, in the form of sensors, actuators and pumps, and the software must be able to meet these high standards of precision.

Bürkert is one of the world’s leading suppliers capable of providing such precision technology. In cooperation with Ascon Systems, Bürkert has so far transferred duties from hardware to software – in other words, IT goes OT. This has already enabled Bürkert to create a hardware-independent description of functions, model data flows and network data across systems and locations.

The two companies are now expanding their collaboration and taking the next step in software-defined production with the introduction of digital twins. The digital twins from Ascon Systems enable Bürkert to store, provide and reuse data in a contextualised manner. This means Bürkert can help its customers to configure and control applications. This enables them to leverage software to make hardware usable for multiple applications and to implement changing requirements, such as those arising from demand, product changes or new product launches, more quickly. This has a positive effect on time-to-market, while also increasing sustainability and improving the CO₂ footprint. Bürkert and Ascon Systems are now demonstrating what this high-tech interplay can look like at SPS in Nuremberg (details below).

Dr. Anne März, Head of Digital Tool Chain at Bürkert Fluid Control Systems, says: “Digital twins are becoming increasingly popular for optimising production processes. Now, they are also becoming a reality in fluid technology. Ascon Systems technology helps to significantly simplify the creation and scaling of digital twins and their networking to the real world. This approach enables us to realise our customers’ requirements faster and more flexibly. Customers can think about and describe the desired application from their own perspective, while we translate it into a hardware-neutral solution using digital twin technology. Once a solution has been found, it is transferred to the real world and can be replicated for other locations and customised with other components on the hardware side. By expanding our collaboration with Ascon Systems, we are now in a position to rethink digital solutions. We also see great potential in this for the future.”



Dr. Anne März, Head of Digital Tool Chain, Bürkert Fluid Control Systems

Jens Mueller, CEO from Ascon Systems, adds: “Since we started establishing digital twins in industrial applications in 2017, the possibilities for deployment scenarios and applications in all industries have increased enormously. We are delighted that we can now extend our long-standing, trusting cooperation with Bürkert to the area of digital twins. Together, we can show how software-defined precision technology can lead to greater efficiency, sustainability and cost reductions in hardware too. We believe this transformation is one of the most important opportunities for companies to position themselves resiliently for the future in global competition.”



Jens Mueller, CEO von Ascon Systems

Ascon Systems and Bürkert at SPS in Nuremberg:

The SPS (Smart Production Solutions) trade fair will take place in Nuremberg from 12 to 14 November 2024. Ascon Systems and Bürkert will each be represented with a stand. You are cordially invited to come by for a demonstration of the joint technology.

To make an appointment, please contact

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Michael Polaczy, +49 151 729 675 28, michael.polaczy@ascon-systems.de

Ascon Systems, Hall 6, Stand 117

Presentation “The factory of the future is more than virtualization”: Jens Mueller, CEO Ascon Systems

- Tuesday, 12 November 2024, 11:20 to 11:40 Uhr, Hall 6, Forum

Bürkert Fluid Control Systems, Hall 7, Stand 360

Example concept “Virtual calibration: how digital twins can fundamentally change processes in the future.”

<https://www.buerkert.de/de/unternehmen-karriere/aktuelles/news/buerkert-sps-2024>

<https://www.burkert.com/en/landingpage/digital-twin-for-automation-and-amp-digitalisation-strategy>

About Ascon Systems Holding GmbH:

Ascon Systems connects the digital with the real world in production. The company is a pioneer in software-defined manufacturing and facilitates the digital transformation towards a flexible, automated process and manufacturing industry in Industry 4.0. Key technologies include digital twins and AI, which are used to achieve IT-OT convergence and the resolution of programmable logic controllers (PLC). Customers include Bürkert Fluid Control Systems, BMW, Mercedes and Drees & Sommer. Other customers include market-leading companies from the automotive, mechanical engineering, aviation and logistics sectors. In April 2024, NVIDIA recognised Ascon Systems as a “Highly Commended NVIDIA Partner in EMEA” in the Industry Innovation category. The CEO is Jens Mueller and the team has more than 110 employees. Ascon Systems is headquartered in Stuttgart, with additional locations in Mainz, Munich, Heilbronn and Stade. More information: <https://ascon-systems.de/en/>

About BÜRKERT

Bürkert is one of the world’s leading manufacturers of measurement and control systems for fluids and gases. Bürkert’s solutions are used in the most varied industries and applications – from breweries and laboratories all the way to medical, bio and aerospace technologies. With a portfolio of more than 30,000 products, Bürkert covers the entire range of components in fluid control circuits for measuring, controlling, and regulating – from solenoid valves, process and analysis valves all the way to pneumatic actuators and sensors. The company with its headquarters in Ingelfingen, in southern Germany, operates an extensive sales network spanning over 30 countries and employs over 3,700 people worldwide. At five system houses in Germany, China and the US as well as five R&D centres, Bürkert is continuously developing customised system solutions and innovative products. The product range is rounded out by the comprehensive BürkertPlus service offer, which supports customers throughout the product life cycle.

Further informationen at: www.burkert.com

www.linkedin.com/company/burkert-fluid-control-systems

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