![rexroth — A Bosch Company]

PRESS RELEASE

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For Immediate Use

Bosch Rexroth sets new standards for safe automation with ctrlX SAFETY

The fastest and most compact safety solution on the automation market

▶ Scalable: From a drive-integrated solution to complete safety control
▶ Efficient engineering through graphical programming
▶ Compact design, fastest reaction time and flexible use

With ctrlX SAFETY Bosch Rexroth offers the most responsive and compact security solution on the market. (Image source: Bosch Rexroth AG)

With ctrlX SAFETY, Bosch Rexroth introduces a novelty to the automation market: the most responsive and compact safety solution of its kind. The scalable system can be used as required – from the drive-integrated SafeMotion solution in ctrlX DRIVE to the complete ctrlX SAFETY control. In addition to the flexible use, the advantages include a very high level of safety thanks to the fastest reaction times and efficient engineering through graphical programming of the safety PLC.

ctrlX SAFETY is based on two components that can be used independently or as an overall system: SafeMotion and SafeLogic. The hardware is extremely compact and, as a safety control, its graphical programming allows the required programs to be created quickly and easily without extensive training. The intuitive engineering interface, a documentation-supported user guidance and

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ready-made dialogs for the acquisition of acceptance-relevant information enable significantly faster engineering than conventional solutions. For more demanding applications, the hardware can be extended by additional I/O modules via the safe fieldbus. It has flexible interfaces such as digital I/O, ctrlX SAFETY[link], Safety over EtherCAT (FSoE) and PROFIsafe (in preparation). The exchange of safe I/O signals between the safety control and the SafeMotion on the ctrlX DRIVE is performed via ctrlX SAFETY[link].

SafeMotion is based on the modular drive system ctrlX DRIVE and has a scalable software. It is available as an entry-level version, with extended functions or for the highest requirements. "SafeMotion brings safety functions exactly where the motion occurs: to the drive. It is therefore unmatched in speed. At the same time, this system allows a purely drive-based safety solution to be implemented completely independently of the higher-level control system," explains Steffen Winkler, Vice President Sales of the Business Unit Automation & Electrification Solutions at Bosch Rexroth.

Compact, lightning fast and adaptable – but safe
The overall result is the fastest and most compact safety solution on the market. ctrlX SAFETY is also characterized by its high adaptability. Steffen Winkler explains: "As a complete solution, SafeMotion and SafeLogic communicate via our ctrlX SAFETY[link]. With it, a 5-10 times faster reaction than with safety-oriented protocols via classic field buses is possible. Together with local I/Os, the shortest processing times of 1 ms in the FastChannel task contribute to this. These features form the basis for highest protection and the compact design of safety devices."

ctrlX SAFETY allows for machine integration in the smallest installation space (thanks to shortened reaction times) and the integrated certified safety technology enables efficient machine acceptance. Once a safety solution has been planned, it can be integrated into different machine concepts without complex adaptation. As it supports the most common safe fieldbus protocols, ctrlX SAFETY can be integrated into almost any automation system, and modular safety strategies with safe cross communication can be realized.

"The user thus receives a solution tailored to his individual safety requirements with maximum flexibility and safety. The use of open standards and safe connectivity at all levels and the fast and versatile selection of safety functions complies with the principle of our open, integrated automation platform ctrlX

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AUTOMATION. ctrlX SAFETY enhances this established platform as a trend-setting safety system," says Steffen Winkler.

About Bosch Rexroth:

As one of the world's leading suppliers of drive and control technologies, Bosch Rexroth ensures efficient, powerful and safe movement in machines and systems of any size. The company bundles global application experience in the market segments of Mobile Applications, Machinery Applications and Engineering, and Factory Automation. With its intelligent components, customized system solutions and services, Bosch Rexroth is creating the necessary environment for fully connected applications. Bosch Rexroth offers its customers hydraulics, electric drive and control technology, gear technology and linear motion and assembly technology, including software and interfaces to the Internet of Things. With locations in over 80 countries, more than 31,000 associates generated sales revenue of around 6.2 billion euros in 2021.

To learn more, please visit www.boschrexroth.com

The Bosch Group is a leading global supplier of technology and services. It employs roughly 420,000 associates worldwide (as of December 31, 2022). According to preliminary figures, the company generated sales of 88.4 billion euros in 2022. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT provider, Bosch offers innovative solutions for smart homes, Industry 4.0, and connected mobility. Bosch is pursuing a vision of mobility that is sustainable, safe, and exciting. It uses its expertise in sensor technology, software, and services, as well as its own IoT cloud, to offer its customers connected, cross-domain solutions from a single source. The Bosch Group's strategic objective is to facilitate connected living with products and solutions that either contain artificial intelligence (AI) or have been developed or manufactured with its help. Bosch improves quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is "Invented for life." The Bosch Group comprises Robert Bosch GmbH and its roughly 440 subsidiary and regional companies in some 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. With its more than 400 locations worldwide, the Bosch Group has been carbon neutral since the first quarter of 2020. The basis for the company's future growth is its innovative strength. At 128 locations across the globe, Bosch employs some 85,000 associates in research and development, of which nearly 44,000 are software engineers.

Additional information is available online at www.bosch.com, www.iot.bosch.com, www.bosch-press.com, www.twitter.com/BoschPress.

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