

PRESS INFORMATION

Entry-level hardware for off-highway telematics

Manuela Kessler | 26.09.2023 | Lohr am Main / Germany | PI 044/23

With the new RCU Lite connectivity device, Bosch Rexroth offers a cost-effective introduction to tailor-made telematics

- Cost-saving telematics device for holistic IoT applications
- Supports Rexroth's BODAS Connect telematics ecosystem
- Flexible wiring via AMP Superseal connectors



Attractive entry to off-highway telematics: The RCU Lite BODAS Connectivity unit connects vehicles and the cloud and can be managed over the air. (Image source: Bosch Rexroth AG)

With the new RCU Lite telematics unit, Bosch Rexroth presents an attractive entry-level connectivity unit for setting up powerful, scalable and secure IoT applications in a cost-effective manner. The microcontroller-based platform gateway with embedded operating system was developed specially for the off-highway market and offers a wide range of connectivity options for collecting and transmitting vehicle data for service or fleet management. The new connectivity unit can be managed and updated over the air.

The new entry-level Series 5 (RCU Lite) complements the microprocessor-based RCU Series 10 (Standard) and 20 (High Performance). The Series 5 hardware is based on a dual core microcontroller with an embedded operating system and allows easy, wireless and future-proof access to off-highway vehicles via a secure wireless connection.

The RCU Lite can collect vehicle data from up to two CAN buses (CAN tracking). The LTE CAT-M mobile communications standard for IoT devices serves as the basis for machine communication with the Internet. A function allowing personal vehicle access via smartphone is also planned for the future. As a result, fleet managers will be able to decide who is allowed to use the machine. The vehicle can then only be started with the help of a certificate stored on the smartphone.

With an IP67-rated housing, the RCU Lite meets all requirements as regards robustness and for use in harsh environmental conditions. Thanks to the AMP Superseal 1.5 mm connector, the telematics unit can be integrated into the vehicle infrastructure easily, flexibly and inexpensively.

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The RCU Lite is also state of the art in terms of cyber security. An integrated certificate management system ensures secure communication. Thanks to various BOSCH security and data protection functions such as a TPM (Trusted Platform Module), the RCU is also ready for future normative requirements.

Complementary software from the BODAS Connect ecosystem

Using the basic software supplied, process values and fault messages can be read out. Combining RCU Lite with the BODAS Connect Device Connectivity service package allows over-the-air updates and configurations (device management). Series 10 RCUs and the high-performance Series 20 models also allow flashing of control units from Bosch Rexroth and other manufacturers via the BODAS Universal Flasher.

The RCU Lite is also suitable as a low-cost introduction to BODAS Connect All-in-One Connectivity, a complete telematics solution which expands device management with industry-proven data management services. The fully integrated end-to-end IoT solution offers an ever-growing variety of easily adaptable standard modules for fleet management and other services. A REST API for connecting to other cloud systems as well as the BODAS Connect data management frontend based on Bosch IoT Insights allow comprehensive data analyses.

Bosch Rexroth at Agritechnica: Hall 16, Booth A08.

Basic Information 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 and Industrial Applications as well as Factory Automation. With its intelligent components, customized system solutions, engineering 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 32,000 associates generated sales revenue of around 7.0 billion euros in 2022.

Basic Information Bosch

The Bosch Group is a leading global supplier of technology and services. It employs roughly 421,000 associates worldwide (as of December 31, 2022). The company generated sales of 88.2 billion euros in 2022. Its operations are divided into four business sectors: Mobility, 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 470 subsidiary and regional companies in over 60 countries. Including sales and

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service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. The basis for the company's future growth is its innovative strength. At 136 locations across the globe, Bosch employs some 85,500 associates in research and development, of which nearly 44,000 are software engineers.

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