New BODAS displays for mobile applications

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Maximum design freedom with three sizes, a software toolbox and new options for communication and programming

- High-performance display unit for mobile electronics packages from a single source
- Scalable: With 5 inch, 7 inch and 10.1 inch touchscreen
- Free toolbox for local access to RC40 control units among other things

The new BODAS DI5 display from Bosch Rexroth offers off-highway manufacturers a great deal of freedom when designing mobile applications and makes servicing Rexroth RC40 control units on location easier. (image source: Bosch Rexroth AG)

Bosch Rexroth has expanded the BODAS ecosystem for mobile electronics with the new DI5 display range. The touchscreen unit which is now available in three sizes can be integrated flexibly into cabins, cabs or outdoor areas and is the ideal basis for simple and intuitive operation of mobile machines. Functions and visualizations can be freely designed in various development environments. The free toolbox contains among other things practical service functions for connected RC40 control units and new functions are being added all the time.

Simple and intuitive operation of mobile machines is becoming increasingly important. At the same time, off-highway manufacturers want design freedom when it comes to the functioning and visualization of display units and operating interfaces while benefiting from the cost advantages afforded by complete packages for mobile electronics – in other words a one-stop shop.

With three sizes (5 inch, 7 inch and 10.1 inch) and a wide range of functions, the new BODAS DI5 display range caters for virtually all applications – from comparatively simple tasks such as displaying certain parameters to elaborately designed dashboard replicas and the so-called bird or area view. Whether in portrait or landscape format, in the dashboard or as a stand-alone unit,

in the cabin or on the outside of the machine – the BODAS DI5 can be optimally integrated into any type of construction machine, forklift or agricultural machine and even municipal vehicles.

With 800 MHz dual and solo iMX6 processors, 4 GB flash memory and up to 1 GB RAM, the display range offers sufficient performance for demanding applications. The robust IP66-rated device design ensures reliable operation even in harsh environments and a wide temperature range from -30 ˚C to +75 ˚C. A high resolution of up to 1280 x 800 pixels and sensor-assisted brightness control ensure optimal readability even in direct sunlight.

Users can freely design the graphical user interface and the desired functions in various development environments. In addition to CODESYS, the BODAS DI5 can also be programmed using Qt-Linux or C/C++. All machine functions can be displayed statically or dynamically. Via the integrated video interfaces, various camera signals can be visualized on the display in picture-in-picture or full screen format.

For on-demand communication, the BODAS DI5 displays support up to four CAN 2.0B connections (CANopen, J1939), two USB 2.0 interfaces and one RS232 interface. A new addition to the portfolio is Automotive Ethernet (T1) which is also advantageous for fast flashing BODAS RC control units.

A highlight of the software package is the DI5 toolbox. It functions as a kind of software container or repository with ready-to-use software features that are being further developed all the time. Examples of this are the "UDS-supported flashing" and "Diagnostic Framework" functions provided free of charge. They allow all BODAS RC40 control units in the vehicle to be serviced on site without additional tools. Via the BODAS DI5 display, service staff can read out active and stored errors for faster diagnostics. New parameters or firmware versions can be transferred to the control units via the integrated USB interface.

Die BODAS DI5 displays are available now. The software package with DI5 toolbox is available for downloading free of charge on the myBODAS platform (mybodas.boschrexroth.com).

About BODAS – Bosch Rexroth Digital Application Solutions

The BODAS ecosystem from Bosch Rexroth offers off-highway manufacturers quick and easy access to greater productivity, efficiency and automation. The portfolio of Bosch Rexroth Digital Application Solutions ranges from IoT solutions, software and electronics hardware to the IoT infrastructure which is offered on a joint basis with Bosch. With its future-proof solutions, BODAS is a market leader when it comes to practicality and quality. As a complete offering, BODAS combines the company's competence and application experience in a number of key areas, namely mobile hydraulics and electronics, edge analytics and IoT. This applies to standard products and individual solutions developed jointly with OEMs.

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 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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