PRC7300 – new welding control from Rexroth

**Welding – Efficient and in the Highest Quality**

Welding processes in the automotive industry have to meet the strictest requirements regarding process safety and the quality of welding spots. With the new welding control PRC7300, Rexroth offers much more than a proven control and monitoring concept: Users benefit from quicker commissioning, maximum availability and energy efficiency, simple handling and maximum flexibility thanks to a broad range of interfaces.

**Extraordinary quality of welding spots**

By means of adaptive control algorithms, the new Rexroth welding control PRC7300 is optimally prepared to provide repeatable high welding spot quality. Different combinations of sheet thicknesses and materials such as steel and aluminium are possible. With the precise adjustment of the welding current, spatter and expensive reworking can be avoided efficiently. Even today, handling, processing control, and monitoring functionalities are ready for future requirements of welding processes.

**90 percent faster commissioning**

Innovative software tools and modular design facilitate up to 90 percent faster commissioning in comparison to other systems. An electric servo-gun front-end and open interfaces for communication, the welding process, and robot integration allow the flexible integration of PRC7300 into customer-specific automation systems – even into Industrie 4.0 environments.

**Highlights**

- Up to 90 percent faster commissioning
- Efficient handling and diagnostics with PRI7000 software
- Integrated web server facilitates operation and diagnostics via smart devices
- Optimized programming, control, and monitoring functionalities for maximum welding spot quality
- State-of-the-art performance electronics for maximum energy efficiency
- Open system architecture with integrated application layer and servo-gun functionality
Ready for Industry 4.0

The PRC7300 control facilitates the realization of horizontally and vertically networked welding systems according to connected industry. The dual-processor architecture for process control and communication allows especially high data transfer rates without affecting the welding process control. The fast information exchange with the higher-level controller can be easily realized using all common Ethernet protocols. All data are being centrally stored on a production server – this helps to reduce the number of required operating computers. An integrated web server allows wireless operation and diagnostics via smartphone and tablet PCs (WLAN). Welding PC and operating interface can be physically separated from the welding cell.

www.boschrexroth.com/industry-4-0

Energy-efficient and compact design

The system uses up to 30 percent less energy when welding and up to 80 percent less energy in idle mode. During production breaks, the higher-level controller can switch the welding controllers to standby mode via field bus and activate them again if required. With its new performance electronics, Rexroth has also managed to reduce power loss and apply smaller, more compact cooling systems. Compared to the previous version, the volume of the PRC7300 welding control has been reduced by 30 percent.

User-friendly software

With the new PRI7000 software, Rexroth simplifies all commissioning, handling, and diagnostics tasks. Intuitive Windows and web applications allow the handling of several welding controls on one hardware platform. Up to 10,000 welding programs can be stored and help to accelerate manufacturing processes.

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Product information:
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Technical Data

► Mains voltage range: 400 V-480 V, 50/60 Hz or 500 V-690 V, 50/60 Hz
► Required wire size: 35 mm²
► Max. secondary current (at ü=55): 30 kA
► Rated net current: 110 A
► Max. primary current: 550 A
► Data interfaces: USB, ETH
► Field bus interfaces: selectable, e. g. ProfiNet, EtherNet/IP, DeviceNet
► Electrical servo-gun front-end: via integrated real-time bus WIC (Weld Interface Controller)
► Digital inputs: 16
► Digital outputs: 8
► Digital E/A expansion via integrated real-time bus WIC
► Cooling: Air cooling
► Protection class: IP20, control cabinet installation
► Control dimensions: 315 x 260 x 180 mm
► Control weight: 14.4 kg