Bosch Rexroth presents collaborative robot based on KUKA

Contact-free, safe, cost-efficient – thanks to the unique APAS assistant technology, the factory of the future is already becoming reality today

- Safe: Contact-free human-robot collaboration (HRC) through innovative Bosch safety concept
- Simple: Flexible integration and conventional KUKA programming
- Cost-efficient: High range and precision

Combines the strengths of human and machine: The APAS assistant based on a KUKA robot supports a variety of work tasks safely and with high precision

Bosch Rexroth continues to expand its portfolio of Automatic Production Assistants (APAS): With the APAS assistant, the company now also integrates KUKA technology into its product range. Unique product features enable a simple and safe entry into the world of human-robot collaboration. Complete with capacitive sensor skin to avoid collisions, selectable control and the widely-used PLC interface mxAutomation, the six-axis robot is set to become the perfect link for combining the strengths of human and machine in the factory of the future.
PRESS RELEASE

Industry 4.0 – a complete solution: The new APAS assistant is already equipped with everything you need to make your own production ready for the future. With a high range of 1100 mm and a large payload capacity of 10 kg, it supports a large number of work tasks or independently handles monotonous or non-ergonomical tasks with high precision and cost-efficiency. When it comes to future-oriented human-robot collaboration, safety comes first. This is made possible through an innovative Bosch safety concept.

Like all other APAS robotic systems, the APAS assistant also has an especially developed sensor skin, which is the key technology for safe human-robot collaboration. If an employee gets too close to the APAS assistant, it stops immediately – even before the human and the robot touch each other. Once the employee has left the immediate vicinity, the robot independently resumes its work exactly where it stopped before. In addition, the production assistant automatically switches to a safe speed if distance is missed by an employee. This safety concept allows the APAS assistant to adapt its working speed to the situation.

Easy integration, direct entry

The KUKA-based APAS assistant can be used in collaborative applications or as a stand-alone version. Thanks to conventional KUKA programming, existing know-how can be utilized and tasks can be implemented in the shortest possible time. In addition, the APAS assistant scores with the widely-used PLC interface mxAutomation, which enables an uncomplicated connection to the existing system environment. Another advantage is the freely selectable control KRC 4 compact (IP20) or the KRC 4 smallsize-2 (IP54). Thus, depending on the circumstances of their existing system, users can decide for themselves whether the control unit is placed in the existing control cabinet or externally.

The APAS assistant combines features such as a high range, large payload capacity, optimized repetitive accuracy and KUKA technology into a unique overall package. This creates the best conditions for optimizing existing process structures, increasing efficiency and improving overall productivity in the long term.
PRESS RELEASE

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. It enables fully connected applications with intelligent components, tailored system solutions, and services. Bosch Rexroth offers its customers hydraulics, electric drives and controls, 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 30,500 associates generated sales revenue of 5.5 billion euros in 2017.

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