

## Press Release

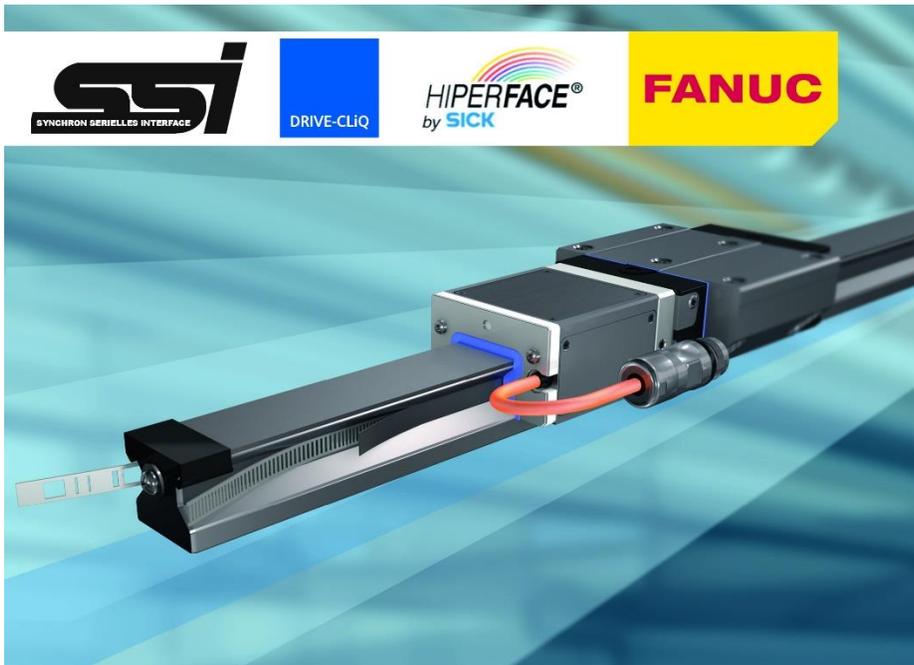
**Rexroth**  
Bosch Group

### Integrated absolute value measuring system with FANUC interface

IMS-A: robust, precise and simple at start-up

IA17014  
06/27/2017

PI 027-17  
For Immediate Use



Measuring system from Rexroth with interfaces to match the CNC controllers from Bosch Rexroth, Siemens and Fanuc.

**Bosch Rexroth, Siemens, FANUC: No matter which servo drive or controller the end user prefers, machine manufacturers can easily equip the measuring system IMS-A integrated into the linear guides. In addition to HIPERFACE\*, SSI and DRIVE-CLiQ\*\*, Rexroth now provides an interface for FANUC automation systems. The absolute position measuring systems IMS-A are highly precise and resistant to metalworking fluids, all types of chips and electromagnetic interference fields.**

Internationally active manufacturers of machine tools, 3D printers and related systems often provide their customers with the choice between two to three CNC controllers to cover regional preferences. While doing so, they follow a common-part strategy below the drive level as much as possible in order to reduce costs and complexity. In addition to interfaces for CNC controllers from Bosch Rexroth and Siemens, IMS-A now supports FANUC automation systems. With these options, start-up only takes a few minutes. With the Plug

Contact for Journalists:  
Bosch Rexroth Corporation  
Susan Strauss  
2315 City Line Road  
Bethlehem, PA 18017  
Telephone (610) 694-8352  
susan.strauss@boschrexroth-us.com

Phase 3 Marketing & Communications  
Laura Craft  
Eden Estabrook  
1435 West Morehead St., Suite 200  
Charlotte, NC 28208  
Telephone (704) 729-0146  
Laura.Craft@phase3mc.com  
Eden.Estabrook@phase3mc.com

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& Play linear encoder system, the person performing the start-up merely has to determine the respective zero point of the machine and the position offset. The IMS-A electronic nameplate transfers all other information.

The absolute position measuring system integrated into the linear guides operates without contact and is therefore wear-free. Through its integration in the runner block and superior sealing, machine manufacturers can avoid energy-intensive air sealing systems, even in working areas with metalworking fluids, dust, chips and other contaminants. In other words, the regular replacement or cleaning work that would usually be necessary for glass scales in these environments is no longer required with the IMS-A. In a comprehensive series of tests, Bosch Rexroth has investigated the effect of a mixture of ferromagnetic laser cutting dust and grease lubricant directly on the scale. Almost all of the paste-like mixture was wiped away by the standard sealing system of the runner block and the absolute position measuring accuracy was always met.

The measuring system is resistant to magnetic fields like those emitting/emitted from linear motors. Protected against vibrations and shocks, the sensors and evaluation electronics are placed in a housing on the end face of the runner block. Design engineers save the space normally reserved for external measuring systems. Rail guides equipped with the IMS-A fit into existing machine designs without any mechanical redesign. The absolute position is transferred with a resolution of 25 nm for all interfaces, while the repeatability is better than +/- 0.25 µm. The integrated scale is available at an accuracy of up to +/- 3 µm/m. With the IMS-A, users can implement several runner blocks on an up to 4,500 mm long profile rail independently and without any limitations on accuracy. The wear-free IMS-A does not require a battery for buffering the position. Even after a power failure, the measuring system still reports the exact position of the axis upon being switched on again from the integrated absolute scale without a homing cycle.

\*HIPERFACE is a registered trademark of SICK STEGMANN GmbH.

\*\*DRIVE-CLiQ is a registered trademark of Siemens.

### **About Bosch Rexroth**

*Economical, precise, safe, and energy efficient: drive and control technology from Bosch Rexroth moves machines and systems of any size. The company bundles global application*

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*experience in the market segments of Mobile Applications, Machinery Applications and Engineering, and Factory Automation to develop innovative components as well as tailored system solutions and services. Bosch Rexroth offers its customers hydraulics, electric drives and controls, gear technology, and linear motion and assembly technology all from one source. With locations in over 80 countries, more than 31,100 associates generated sales revenue of approximately \$5.99 billion (5.4 billion euros) in 2015. To learn more, please visit [www.boschrexroth.com](http://www.boschrexroth.com)*

**About Bosch**

*Having established a regional presence in 1906 in North America, the Bosch Group employs some 32,500 associates in more than 100 locations, as of December 31, 2016. According to preliminary figures, in 2016 Bosch generated consolidated sales of \$13.7 billion in the U.S., Canada and Mexico. For more information, visit [www.boschusa.com](http://www.boschusa.com), [www.bosch.com.mx](http://www.bosch.com.mx) and [www.bosch.ca](http://www.bosch.ca).*

*The Bosch Group is a leading global supplier of technology and services. It employs roughly 390,000 associates worldwide (as of December 31, 2016). According to preliminary figures, the company generated sales of 73.1 billion euros (\$80.9 billion) in 2016. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT company, Bosch offers innovative solutions for smart homes, smart cities, connected mobility, and connected industry. 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 create solutions for a connected life, and to improve 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 450 subsidiaries 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. The basis for the company's future growth is its innovative strength. At 120 locations across the globe, Bosch employs 59,000 associates in research and development.*

*Additional information is available online at [www.bosch.com](http://www.bosch.com), [www.iot.bosch.com](http://www.iot.bosch.com), [www.bosch-press.com](http://www.bosch-press.com), [www.twitter.com/BoschPresse](https://twitter.com/BoschPresse).*

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