

Press Release

Schaeffler at the AMB 2022, Hall C2, Booth E21

Schaeffler supplements bearing portfolio with angular measuring system for high speed rotary tables

SCHWEINFURT/STUTTGART, 2022-09-13.

- Incremental angular measuring system now optionally available for ZKLDF-series axial angular contact ball bearings
- Angular measuring system integrated into the rotary table bearing support offers very high accuracy and extremely easy mounting
- No restrictions on the hollow shaft diameter even with measuring system

Schaeffler is presenting its ZKLDF-series axial angular contact ball bearings with an optional integral, incremental angular measuring system (ZKLDFMI) at the AMB 2022 in Stuttgart. Due to their suitability for very high speeds, low breakaway torque, and low friction levels, ZKLDF-type bearings are preferably used in high speed machine tools for machining non-ferrous metals, plastics, and wood. Highly dynamic rotary indexing tables in industrial automation are also a preferred area of application. Because ZKLDF bearings in rotary axes are almost always combined with direct drives, the integration of an angular measuring system was a logical step. As with all the other angular measuring systems from Schaeffler for the machine tool sector, an inductive AMOSIN® angular measuring system is also used in ZKLDFMI bearings.

A bearing-integrated solution with multiple benefits

The dimensional scale of AMOSIN® angular measuring systems is affixed to the precision ground and perfectly true-running bearing inner ring. The greatest possible measurement accuracy is achieved by positioning the measuring system in the bearing plane. The measuring head is screw mounted directly to the stationary bearing outer ring. The inductive measuring system is particularly resistant to lubricants and magnetic fields. The maximum speed of the ZKLDF bearing can be fully utilized due to the high output frequency of the incremental measuring head. The central passage is not influenced by the measuring system, which ensures design freedom for the media feed-throughs.

The incremental system has distance-coded reference marks. Thus, although the controller needs to do a reference run when first switched on, the run is very brief, as the scanner only needs to pass over the two reference marks. Once the reference run is complete, the absolute angle position is known and machining can commence.

Schaeffler Group – We pioneer motion The Schaeffler Group has been driving forward groundbreaking inventions and developments in the field of motion technology for over 75 years. With innovative technologies, products, and services for electric mobility, CO₂-efficient drives, chassis solutions, Industry 4.0, digitalization, and renewable energies, the company is a reliable partner for making motion more efficient, intelligent, and sustainable – over the entire life cycle. The Motion Technology Company manufactures high-precision components and systems for drive train and chassis applications as well as rolling and plain bearing solutions for a large number of industrial applications. The Schaeffler Group generated sales of EUR 16.3 billion in 2023. With around 83,400 employees, Schaeffler is one of the world's largest family-owned companies and one of Germany's most innovative companies.

ZKLDF-series bearings are now available with incremental angular measuring system, ordering designation: ZKLDFMI

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CONTACT:

Yusuf Bulut

Head of Communications & Marketing Industrial
Schaeffler Technologies AG & Co. KG, Schweinfurt
Tel. +49 9721 91 3934
E-Mail: bulutysu@schaeffler.com

Johanna Katzenberger

Communications Industrial
Schaeffler Technologies AG & Co. KG, Schweinfurt
Tel. +49 9721 91 5125
E-Mail: johanna.katzenberger@schaeffler.com