Sensor magnetic ring suitable for press fitting

APPLICATION OF A SENSOR MAGNET RING DIRECTLY TO THE MOTOR SHAFT WITHOUT ADDITIONAL BUSHINGS

Due to their high brittleness, sensor magnets used to be injected onto carrier bushings made of metal or plastic. This assembly was then press-fitted to the motor shaft at the customer’s. A new more flexible magnetic compound having better properties in terms of elongation and tensile strength has now made it possible to omit the carrier bushings. Direct press-fitting of the magnet to the motor shaft is even possible when subjected to temperatures of between -40 and 140 °C.

APPLICATIONS

- Sensor ring for speed measurement
- Sensor ring for commutation
- Sensor ring for measuring angle of rotation

TECHNICAL DATA

- Plastic-bound hard ferrite magnet HF 11/19 p based on PA 6
- Remanence Br min: 235 mT/Remanence Br typ. 245 mT
- Different magnetization types possible: multipole on circumference, multipole on front face

ADVANTAGES / BENEFITS

- Magnetic compounds having better elongation properties allow direct-press fitting onto shafts, thus simplifying mounting
- This saves parts costs by reducing the number of required components (no bushings)
- Larger shaft tolerances are possible
We commit our expertise and our experience to your development process. Based on ultra-modern standards, we combine knowledge, technology and craftsmanship to create an efficient process and ultimate quality.

The requirements expected of permanent magnets and magnet assemblies are becoming ever more individual and, at the same time, ever more complex. We therefore take pleasure in casting light on the entire value-added chain: We are there beside you as a dependable partner, all the way from shared product development to on-schedule delivery. With our unique linked chain of areas of expertise, we can act as a specialist and as an all-rounder, depending on what is required, as a one-stop shop for high-quality processes. Together, we can transform a good idea into a genuine competitive advantage. After all, for you, the perfect amalgam of experience, expertise and technical implementation means, above all, one thing – efficiency. This creates results that firmly embed success in your products.

As a medium-sized company, MS-Schramberg has been synonymous with problem-solving expertise and quality for 50 years. The company is one of Europe’s leading manufacturers of permanent magnets and assemblies. On an area of approx. 33,000 square meters in three plants in Schramberg, Germany, more than 550 employees are developing and producing more than 5,000 customer-specific articles, used successfully worldwide by companies from a wide range of sectors.