



# KS PERMAGLIDE® plain bearings: Proportional solenoid

**Sector: Drive engineering**

## Products used

KS PERMAGLIDE® plain bearing bush  
design PAP ... P14

### Function

Proportional solenoids are electromagnetic actuators for small strokes. They convert electrical energy into proportional mechanical energy.

### Bearing with KS PERMAGLIDE® P14 plain bearing bushes

In the process, KS PERMAGLIDE® P14 plain bearings guide the rotor at a very low bearing clearance. The plain bearing must possess a low and, above all, consistent friction coefficient over the course of the entire operating life in order to minimise energy loss and keep the hysteresis low. The ferromagnetic characteristic of the steel back is also significant. Due to the antistatic characteristic of the KS PERMAGLIDE® P14, there is no electrical charging through which dust could be drawn in.

### Advantages of KS PERMAGLIDE® P14 plain bearing bushes

- Unleaded
- Compliant with Directive 2011/65/EU (RoHS II)
- Low and constant friction value
- Low bearing clearance
- Compact size
- Maintenance-free operation under dry-running conditions
- Low wear
- Very low stick-slip tendency
- Rotating or oscillating movements up to a speed of 1 m/s
- Temperature range –200 °C to 280 °C

### Description of material

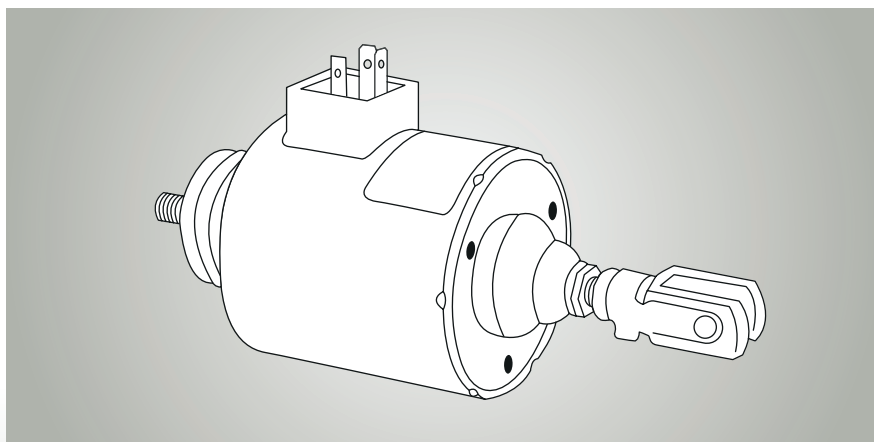
KS PERMAGLIDE® P14 is a lead-free standard sliding material with a high tribological performance. It is designed for maintenance-free applications under dry-running conditions. It may also be employed in systems with liquid or grease lubrication, however.

### Further information on KS PERMAGLIDE® plain bearings

- KS PERMAGLIDE® catalogue, item no. 50003863-02
- KS PERMAGLIDE® online catalogue [shop.permaglide.com](http://shop.permaglide.com)



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*Proportional solenoid application*