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# Vishay Launches RAMK027 Position Sensor for Harsh Working Conditions

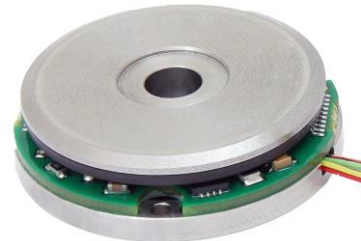
The Vishay Sfernice RAMK027 high precision position sensor — which offers higher performance and efficiency for harsh working conditions in embedded equipment and military applications — is now available for designers. With an outer diameter of 27 mm, the RAMK027 encoder offers comparable features to larger devices. Composed of a stator and rotor, the sensor is insensitive to moisture, dirt, and airborne pollution. The RAMK027 utilizes an advanced electronic architecture to achieve > 13 bits accuracy and > 17 bits resolution, while maintaining high robustness against external magnetic fields, high vibrations, mechanical shocks, and temperature cycling.

## Key Advantages

- ✓ **HIGH EFFICIENCY:**
  - ✓ Accuracy > 13 bits
  - ✓ Resolution > 17 bits
  - ✓ Safe communication with SSI output
- ✓ **PLUG AND PLAY:** Operates without additional calibration by following assembly recommendations (user manual)
- ✓ **SAFETY:** Operates in harsh EMC conditions (tested up to 200 V/m)
- ✓ **SMART:** Consistency through monitoring of internal magnetic cells

## Main Features

- ✓ Off-axis design
- ✓ Absolute function
- ✓ Resolution > 17 bits
- ✓ Accuracy > 13 bits
- ✓ Dimensions: 27.3 mm x 4.76 mm x 7.6 mm
- ✓ Single turn
- ✓ Output signal: SSI
- ✓ Temperature range: -40 °C to +105 °C
- ✓ Acceleration up to 100 g, shock of 180 g, vibration of 0.05 g/Hz
- ✓ EMC: tests performed according to RE101, RE102, RS101, and RS103
- ✓ ESD protection





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## Main Applications / Main Functions = Precise and Repetitive Motion

- ✓ Industrial equipment: arm joint position, steering wheel control, small actuators, gimball function in optical balls
- ✓ Military devices: missile guidance functions and missile gimball functions in homing heads



### Useful Links

- RAMK product page [www.vishay.com/ppg?32583](http://www.vishay.com/ppg?32583)
- RAMK datasheet [www.vishay.com/doc?32583](http://www.vishay.com/doc?32583)

### Contact Information

**Emmanuel Lemelle**  
**Senior Manager Product Marketing, MCB Transducers**  
[emmanuel.lemelle@vishay.com](mailto:emmanuel.lemelle@vishay.com)