



KMY22



KMY20



KMZ20

KMY_KMZ

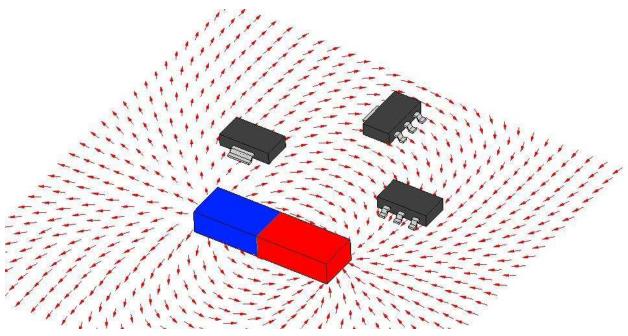
Linear Magnetic Field Sensors

SPECIFICATIONS

- AMR sensor
- Very high sensitivity
- Almost no hysteresis
- Various applications
- Available with internal magnet
- Available in several packages

Due to its featured properties - high sensitivity and almost no hysteresis - the **KMY** / **KMZ** sensors are used in a wide range of applications, like magnetic field measurement, revolution counters, proximity detecting, and position measurement.

An uniaxial linear magnetic field will generate a linear output within the specified magnetic field range.



FEATURES

- Output proportional to magnetic field strength with very high sensitivity
- Very small hysteresis
- Large operating temperature range, from -40°C up to +150 °C
- Highly reliable
- With / without internal magnet

APPLICATIONS

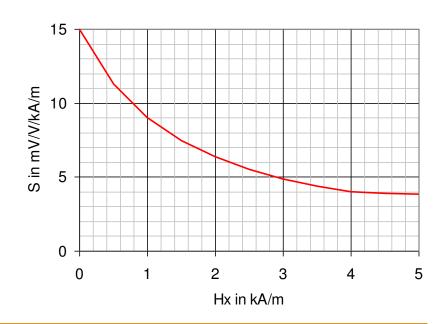
- Detection of very weak magnetic fields, like earth magnetic field, or field generated by small magnetic particles
- Detection of objects that distort non-local magnetic fields
- Revolution measurement on ferromagnetic gears
- · Contactless switch
- Contactless displacement / position sensor

DESCRIPTION

An uniaxial linear magnetic field (in y-direction) will generate a linear output within the specified magnetic field range. The sensor is available in two types: the KMY 20 M, KMY 21 M and KMZ 20 M sensor types contain intrinsic magnets which provide an auxiliary magnetic field (in x-direction) at the sensor die which prevents magnetic domains from flipping irregularly.

If the dies MR174B or the components KMY22, KMY20S or KMZ20S are used, the auxiliary field has to be provided by the user. The dependence of the sensitivity with auxiliary field strength is depicted in the figure aside.

Figure 1: Sensitivity dependence on auxiliary field strength



Auxiliary Field Dependence