

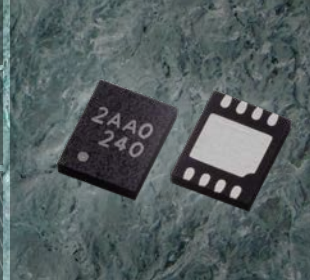


Salmon represent our magnetic sensors because of the use magnetism for their sense of direction. This sense of direction is so strong they even can climb waterfalls.

**MLX90392**

**MICROPOWER TRIAXIS®**

**3D MAGNETOMETER**



## MAGNETIC FIELD SENSOR FOR COST CONSCIOUS APPLICATIONS

The MLX90392 is a three-axis magnetic position sensor which brings the Triaxis® Hall magnetic-sensing technology to cost-conscious white goods, smart metering, gaming, and home-security sectors

### MLX90392

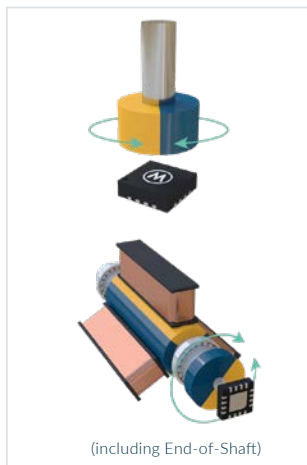
The device, especially designed for micropower applications, measures magnetic fields along the 3 axis (X, Y being in a plane parallel to the surface of the die, Z being perpendicular to the surface). Those measurements and the IC temperature are converted into 16-bit words which are transferred upon request over I2C communication channel. The device transmits compensated raw measurement data.

The MLX90392 is available in 2 magnetic versions:

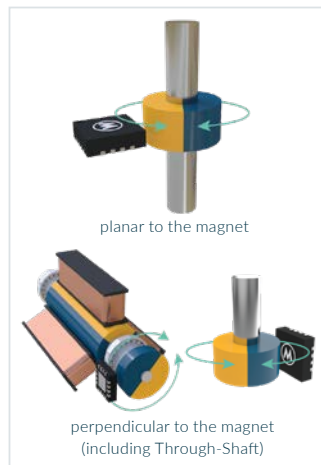
+/-5mT range for low-noise applications

+/-50mT range for position sensor applications

On-axis



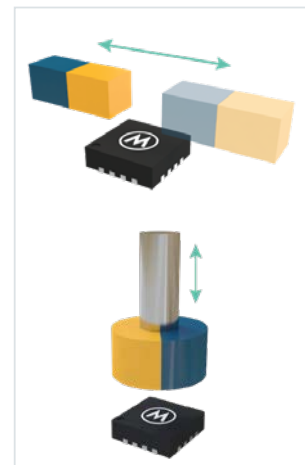
Off-axis



Joystick



Linear



## KEY FEATURES

- ✔ Suitable for space constrained applications
  - UTDFN-8 package (JEDEC qualified) 2 x 2,5 x 0.4mm
- ✔ Programmable parameters on the fly
- ✔ Micropower
  - Power down current of 1.5uA
  - Supply voltage of 1.8V
- ✔ Selectable modes
  - Single Measurement
  - Continuous Mode up to 1.4kHz (XYZ)
- ✔ Triaxis® Hall technology for best-in-class in noise
  - 1  $\mu$ Trms for the +/-5mT variant
  - 7  $\mu$ Trms for the +/-50mT variant
- ✔ Compatible with I2C 1MHz
- ✔ Ambient temperature range from -40degC to 85degC
- ✔ Digital 16-bit Output for magnetic and temperature (XYZT)

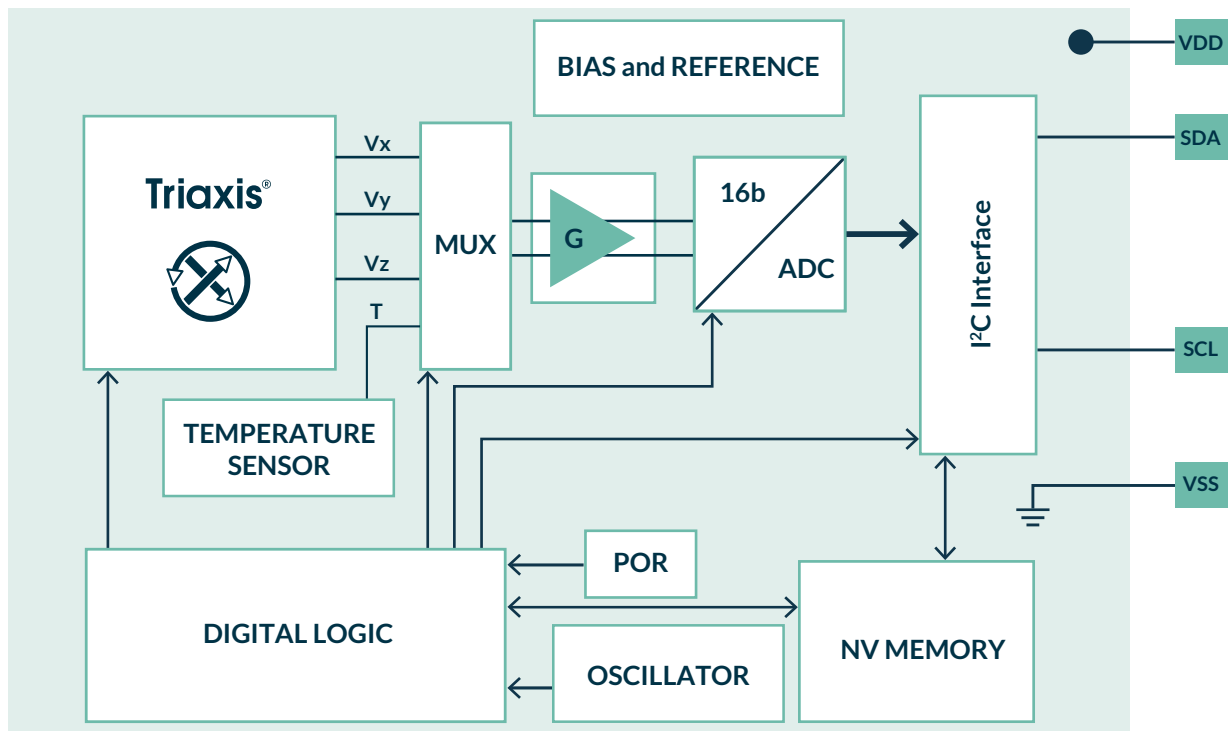


## APPLICATIONS

- ✔ Power tools - Screwdriver trigger
- ✔ Home security- door window intrusion
- ✔ Knobs for White goods
- ✔ PC peripheral – Mouse roller
- ✔ Gaming joystick
- ✔ Anti-tamper for energy metering



## APPLICATION DIAGRAM



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