

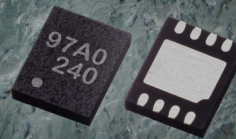


Salmon represent our magnetic sensors because of the use magnetism for their sense of direction. This sense of direction is so strong they even can climb waterfalls.

MLX90397

MICROPOWER TRIAXIS®

3D MAGNETOMETER



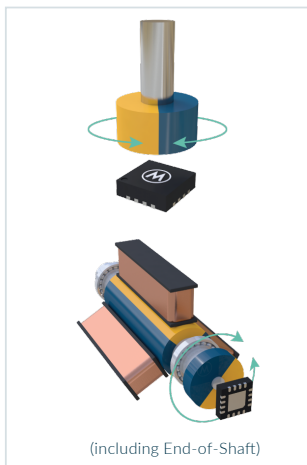
MAGNETIC FIELD SENSOR FOR BATTERY POWERED APPLICATIONS

The MLX90397 expands the Triaxis® Hall magnetic-sensing technology to cost-conscious white goods, gaming, home-security and industrial sectors. It is especially suited for battery-powered applications

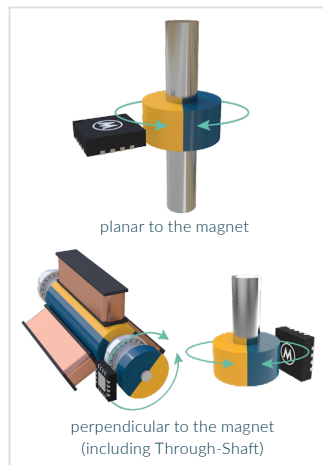
MLX90397

The MLX90397 is a 16-bit 3-axis sensor device that has a magnetic field range reaching 50mT (with an adaptive range on the z-axis of up to 200 mT). it allows the user to choose the fields to measure among Bx, By, Bz, temperature or a combination. With its wide supply voltage (1.7 ~ 3.6 V) and low power consumption of typ. 7 nA, the MLX90397 is ideal for battery-powered applications.

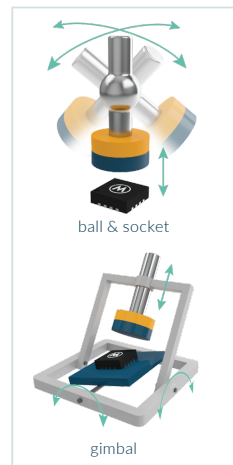
On-axis



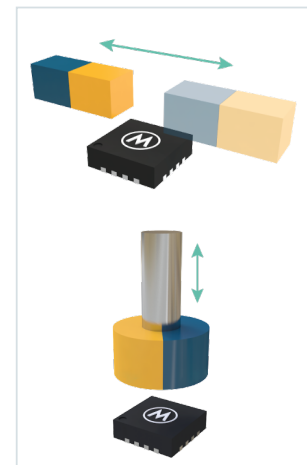
Off-axis



Joystick



Linear



KEY FEATURES

- ✓ Suitable for space constrained applications
 - UTDFN-8 package (JEDEC qualified) 2 x 2,5 x 0.4 mm
- ✓ Programmable parameters on the fly
 - B_x , B_y , B_z , temperature or a combination.
 - Filtering
 - Selectable operating modes: single measurement or continuous mode up to 1.4 kHz (XYZ)
- ✓ Micropower
 - Power down current of typ. 7 nA
 - Supply voltage range 1.7 ~ 3.6 V
- ✓ Digital 16-bit Output for magnetic and temperature (XYZT)
- ✓ Triaxis® Hall technology for best-in-class noise with typ. 2.2 μ T for 5 ms conversion time
- ✓ Compatible with I2C (0.1, 0.4 or 1 MHz)
- ✓ Ambient temperature range from -40 °C to 105 °C

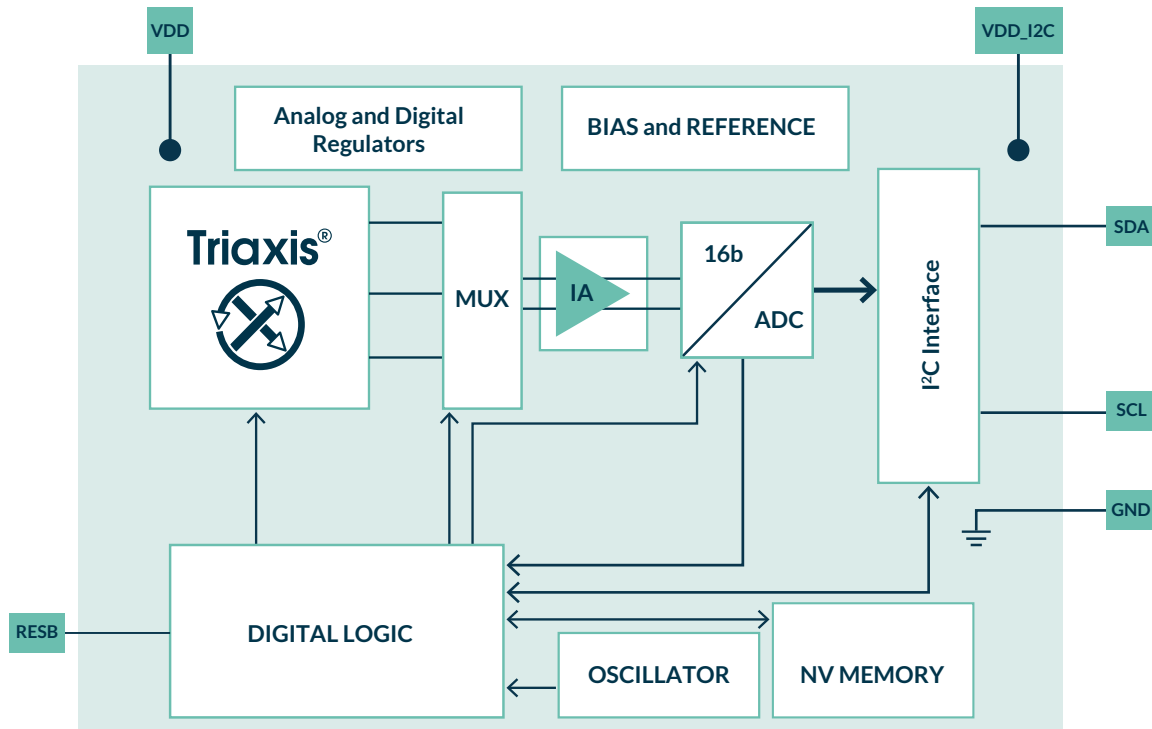


APPLICATIONS

- ✓ 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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