Product Information

MLX90316

Absolute Rotary Position Sensor IC

The MLX90316 is a monolithic sensor IC featuring the Triaxis^{TM} Hall technology. Conventional planar Hall technology is only sensitive to the flux density applied orthogonally to the IC surface. The Triaxis^{TM} Hall sensor is also sensitive to the flux density applied parallel to the IC surface.

The MLX90316 senses the absolute rotary (angular) position of a diametrically magnetized magnet rotating above it. It enables the design of novel generation of non-contact rotary position sensors that are frequently required for both automotive and industrial applications.

Applications

- Absolute Rotary Position Sensor
- Steering Wheel Position Sensor
- Pedal Position Sensor
- Throttle/EGR Valve Position Sensor
- Height Sensor
- Non-Contacting Potentiometer
- Float-Level Sensor

Features

- Absolute Rotary Position Sensor IC
- Triaxis^{TM} Hall Technology—Non Contact
- Full 360 Degrees or limited Angle Applications
- 12-bit Resolution on 360 Degrees of Rotation
- 10-bit Angular Accuracy
- Simple & Robust Magnetic Design
- 40-bit ID Number
- Programmable Linear Transfer Characteristic
- Selectable Analog (Ratiometric), PWM or Serial Protocol
- Single Die - SO8 Package RoHS Compliant
- Dual Die (Full Redundant) — TSSOP16 Package RoHS Compliant

Melexis
Microelectronic Integrated Systems

MLX90316

Tria⊗is^{TM}

Functional Diagram

Typical Application

Bus ICs

BLDC Motor Control ICs

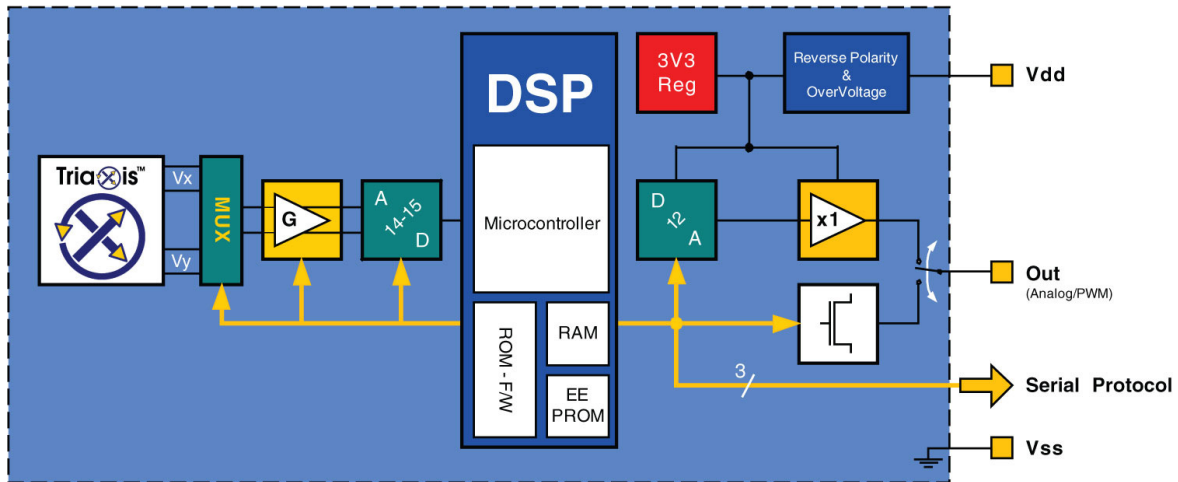Pressure Sensors

Wireless ICs

Hall Effect ICs And Sensors

Optoelectronic Sensors

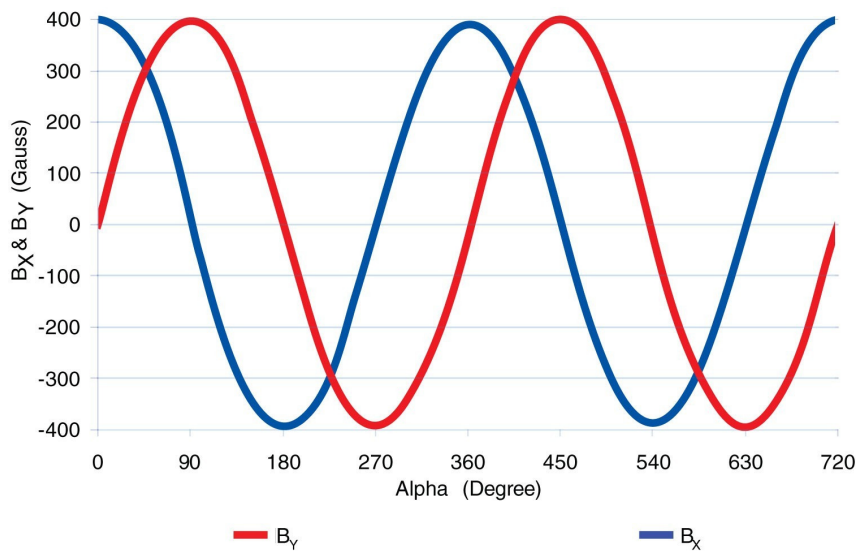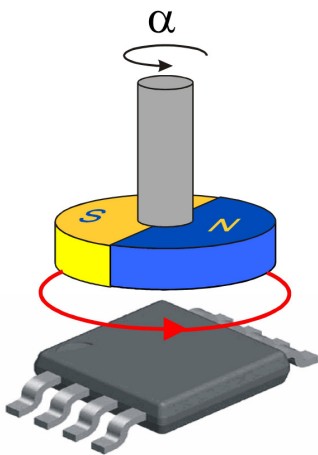Sensor Interface ICs

InfraRed Sensors