

Product Information

MLX90324

Absolute Rotary Position Sensor IC

The MLX90324 is a monolithic sensor IC featuring the Triaxis™ Hall technology. Conventional planar Hall technology is only sensitive to the flux density applied orthogonally to the IC surface. The Triaxis™ Hall sensor is also sensitive to the flux density applied parallel to the IC surface.

The MLX90324 senses the absolute rotary (angular) position of a magnet rotating above it (non-contact) and reports either an analog output level or a PWM duty cycle or a SENT (SAE-J2716) message.

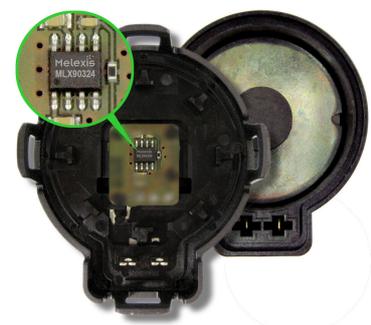
It is targeted for "Under-the-Hood" applications through an excellent stability over the entire thermal range and lifetime.

Applications

- Absolute Rotary Position Sensor
- Engine Valve Position Sensor (Throttle, EGR, Manifold...)
- Steering Wheel Position Sensor
- Height Sensor
- Non-Contacting Potentiometer

Features

- Absolute Rotary Position Sensor IC
- Triaxis™ Hall Technology—Non Contact
- Full 360 Degrees or limited Angle Applications
- -40°C — +150°C Ambient Temperature Range (qualified up to +160°C)
- 12-bit Resolution on 360 Degrees of Rotation
- 10-bit Angular Accuracy
- Selectable Output Mode:
 - Analog (Ratiometric)
 - PWM
 - SENT Protocol (SAE-J2716 - Apr.07)
- Programmable Linear Transfer Characteristic
 - 3 Arbitrary Points & 4 Slopes
 - Piece-Wise-Linear (PWL) — 16 Segments
- Broken-Track Diagnostic (Open-VDD, Open-VSS)
- Simple & Robust Magnetic Design
- 48-bit ID Number
- Single Die - SO8 Package RoHS Compliant
- Dual Die (Full Redundant) — TSSOP16 Package RoHS Compliant
- Lead free component, suitable for lead free soldering profile 260°C



Bus ICs

BLDC Motor
Control ICs

Pressure Sensors

Wireless ICs

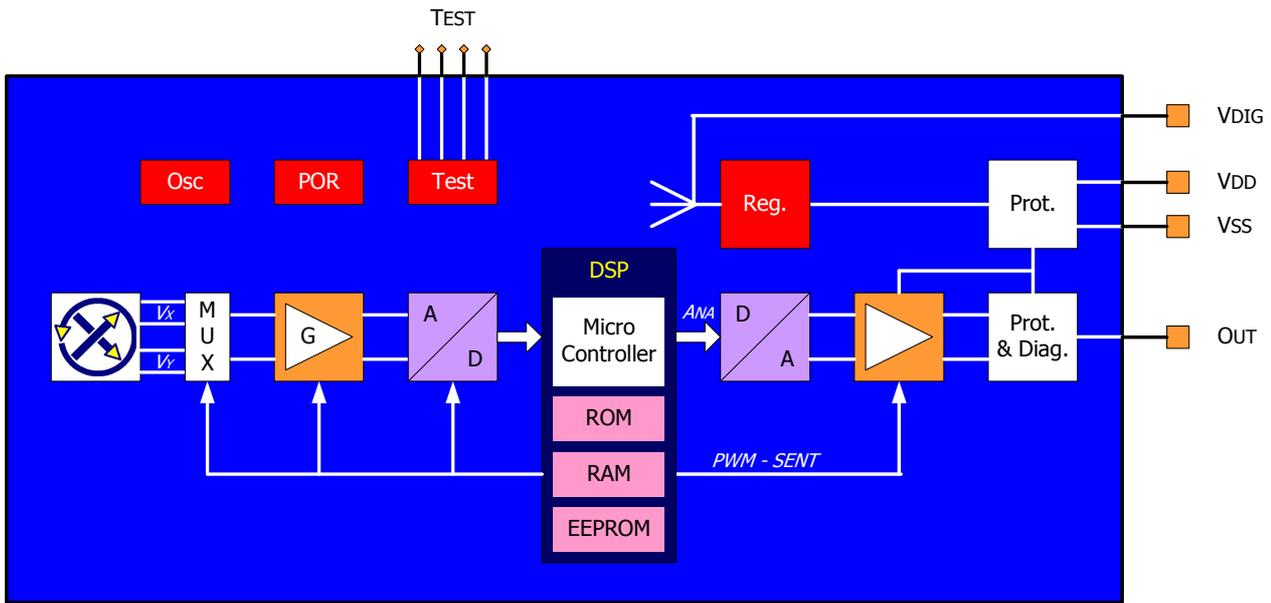
Hall Effect ICs
And Sensors

Optoelectronic
Sensors

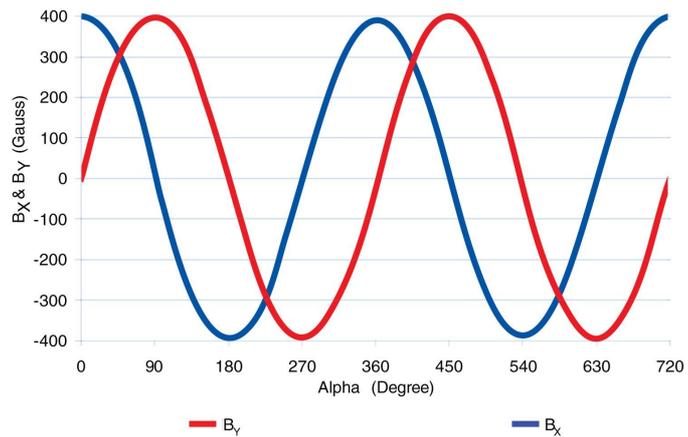
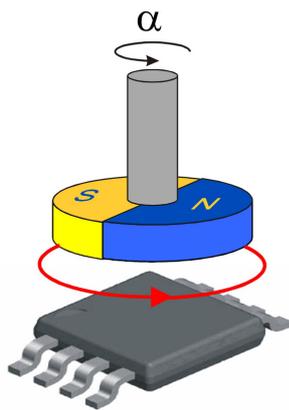
Sensor Interface ICs

Infrared Sensors

Functional Diagram



Typical Application



For additional information email info@melexis.com or go to our website at: www.melexis.com



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- Bus ICs
- BLDC Motor Control ICs
- Pressure Sensors
- Wireless ICs
- Hall Effect ICs And Sensors
- Optoelectronic Sensors
- Sensor Interface ICs
- Infrared Sensors