

Product Information

MLX91205LB – MLX91205HB

Current Sensor

The new Triaxis™ current sensor MLX91205 is a single axis integrated magnetic sensor based on the Hall effect. It produces an analog, ratio-metric output voltages proportional to the applied magnetic field parallel with the chip surface.

The circuit is fabricated using a standard CMOS process. The additional ferromagnetic layer (Triaxis™ or IMC™=Integrated Magnetic Concentrator) that is added in a simple post-processing step, amplifies the magnetic field and concentrates it on the Hall elements. Therefore, the circuit features very high magnetic sensitivity, low offset and low noise.

The MLX91205 is ideally suited for current sensing in automotive and industrial environments. Two different versions with different magnetic ranges are available.

MLX91205**LB**:

Low Magnetic Field (Linear Magnetic Field Range $\pm 10\text{mT}$)

MLX91205**HB**:

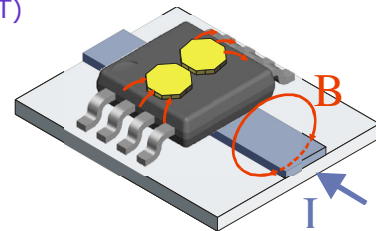
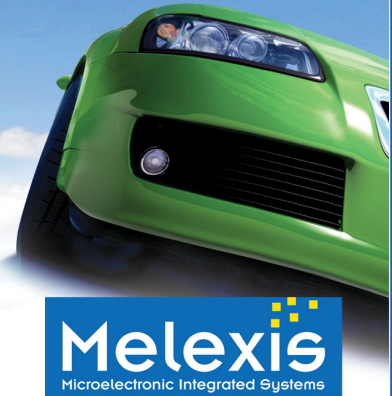
High Magnetic Field (Linear Magnetic Field Range $\pm 25\text{mT}$)

Applications

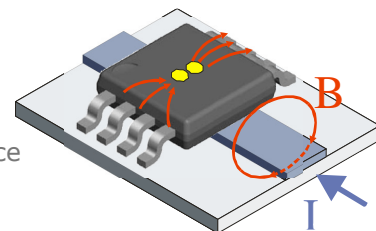
- AC and/or DC Current Measurement
- Contactless Current Monitoring
- Wideband Magnetic Field Measurement
- Non Intrusive Current Measurement
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Battery Management / Charger
- Overcurrent Protection
- AC/DC (Solar-)Converters
- Motor and Fan Control
- Threshold detection

Features

- Triaxis™ Hall Technology
- Sensitive to a magnetic field parallel to the chip surface
- Linear output voltage proportional to a magnetic field
- Zero power loss in primary circuit
- Very high sensitivity
- Excellent nonlinearity
- Wideband: DC to 100kHz
- Very low offset and offset drift
- Very low noise
- Isolated from current conductor
- Surface mount SOIC8 package



MLX91205LB: Low Magnetic Field



MLX91205HB: High Magnetic Field

Bus ICs

BLDC Motor
Control ICs

Pressure Sensors

Wireless ICs

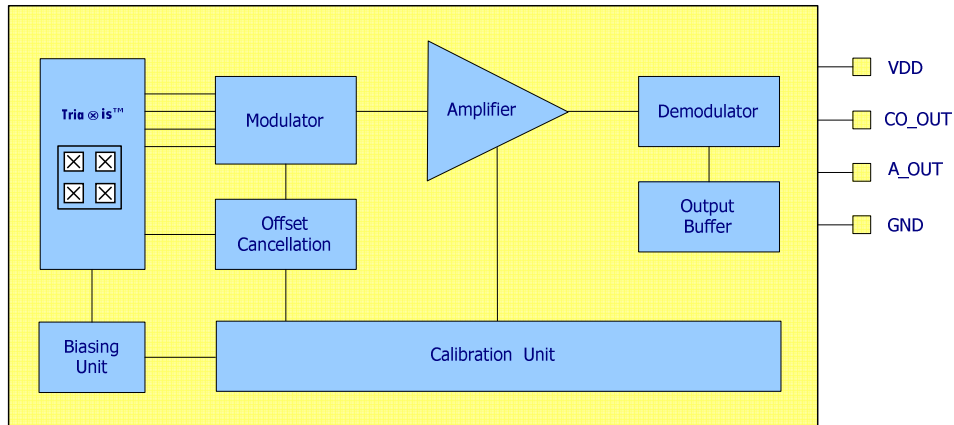
Hall Effect ICs
And Sensors

Optoelectronic
Sensors

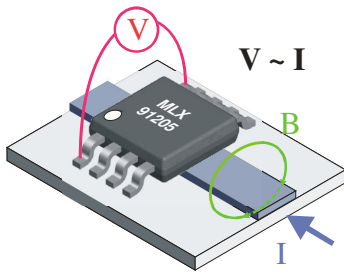
Sensor Interface ICs

Infrared Sensors

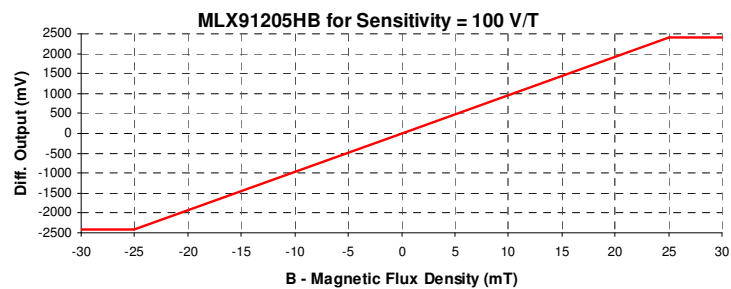
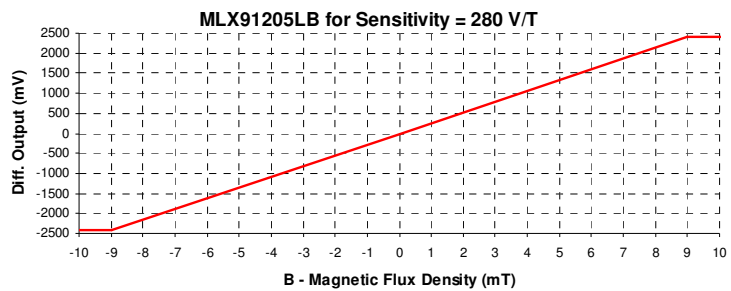
Functional Diagram



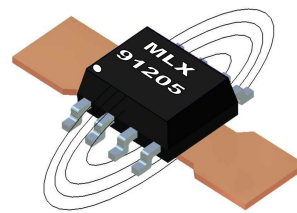
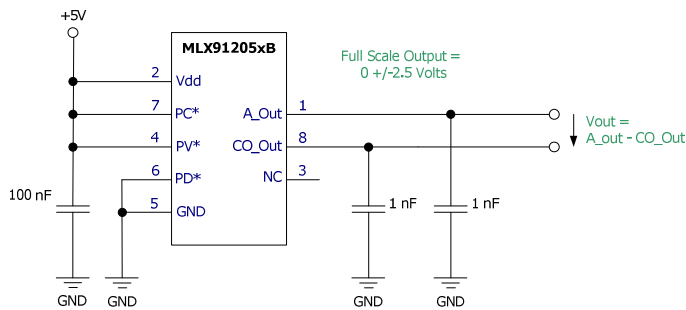
Typical Application



Magnetic Range:
 MLX91205LB = ±10mT
 MLX91205HB = ±25mT



Pin-out



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