

Product Information

Automotive Sensor Interface

MLX90320

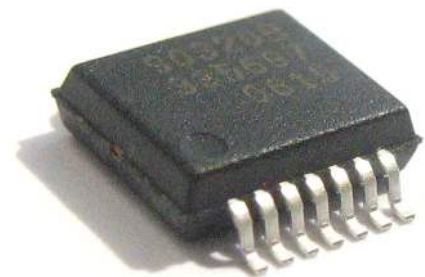
MLX90320 interface IC amplifies and temperature compensates resistive Wheatstone bridge type sensing elements. The signal conditioning circuitry includes gain adjustment, offset control and second order temperature compensation of the resistive sensing element. Compensation values are stored in EEPROM. MLX90320 is programmed through a single serial wire (output pin). The user can specify on-chip clamping levels (fault detection bands).

Features

- Cost optimized sensors: single chip automotive sensor conditioning solution
- Dedicated for automotive applications with wide temperature range
- Second order gain and offset correction by programmable coefficient
- External or internal temperature sensor
- Over-voltage protection (no additional protection IC needed)
- Fault detection and programmable clamping levels
- Ratiometric output: 0 to 5V
- Single pin programming (through output pin)
- Fast response time (fully analog signal path)
- SSOP14 package or die form

Applications

- Pressure transducers, strain gauges
- Accelerometers, position sensors, magnetic sensors
- Steering systems (e.g. torque sensors)
- Safety restraints systems (e.g. seat occupant detection)
- Braking systems (e.g. ABS, force)
- Comfort systems (e.g. air conditioning)
- Engine management (e.g. injection)
- Any resistive bridge type sensor



Bus ICs

BLDC Motor
Control ICs

Pressure Sensors

Wireless ICs

Hall Effect ICs
And Sensors

Optoelectronic
Sensors

Sensor Interface ICs

Infrared Sensors

Application Schematics

Very few off-chip components needed.

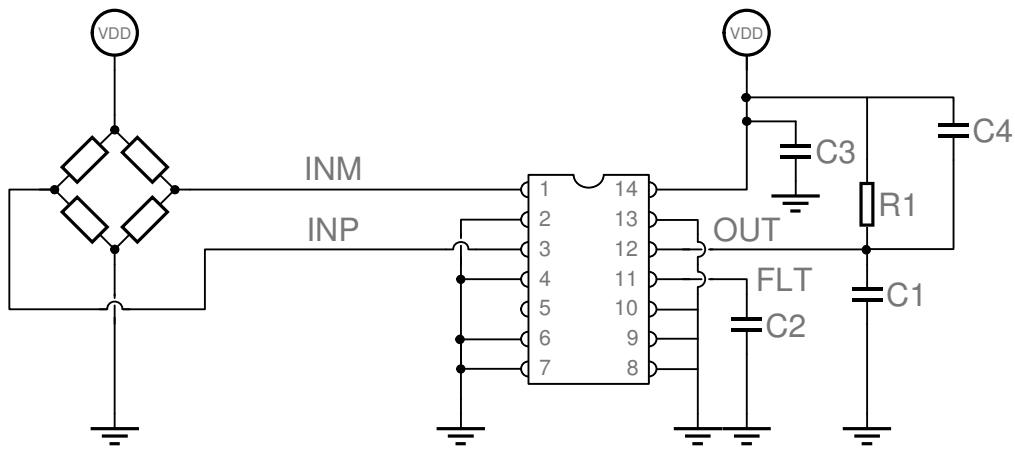


Illustration of a pressure module using Melexis' Sensor Interface IC

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