

MLX90513

INDUCTIVE POSITION POSITION INTERFACE IC ANALOG/PWM/SENT/SPC

AUTOMOTIVE INDUCTIVE POSITION SENSOR

MLX90513

The MLX90513 is an inductive position sensor interface used for absolute rotary and linear motion/position sensing in automotive and industrial applications. It is designed to control an inductive sensor (coils) and to process the captured analog signals with on-chip calculation. It supports 4 output modes: SENT/SPC (Short PWM Code), PWM and analog. The MLX90513 is well suited for demanding applications such as pedal or steering wheel position.

KEY FEATURES

- ✓ High accuracy: maximum ±0.1% FS
- Supports rotary (360°) and linear (up to 30 cm)
- 🞯 Immune to magnetic stray fields (ISO 11452-8)
- 🞯 On-chip signal processing
- Single pin output configurable for SENT/SPC, PWM or Analog Ratiometric
- (fast) SENT according to SAE J2716 APR2016 featuring:
 - Enhanced serial data communication
 - Min. 0.5 µs tick time

- Flexible signal conditioning with 32-point programmable linear transfer characteristic
- ASIL C compliant for all output modes (including analog), Safety Element out of Context (ISO 26262)
- Overvoltage and reverse-polarity protection ±24 V maximum
- Ø Ambient operating temperature from −40°C to 160°C
- ♂ TSSOP-16 Package RoHS Compliant









Linear (<30cm)



BLOCK DIAGRAM







APPLICATION VISUAL



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