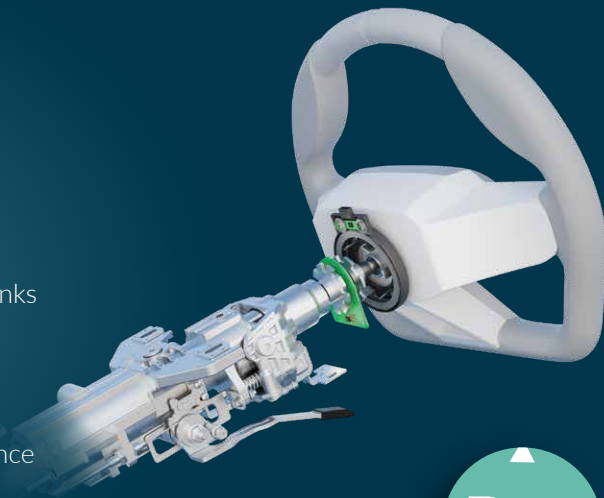


INDUCTIVE POSITION SENSORS

MLX90513-MLX90514

Experience inductive position sensing technology, now broadly available thanks to Melexis. With native immunity to stray magnetic fields, the MLX90513 & MLX90514 are designed for exceptional accuracy and functional safety, addressing the complex challenges of modern automotive systems, from steering, braking and e-chassis. Simplify your design, reduce your Bill of Materials (BoM), and ensure responsiveness with our robust, high-performance solutions.

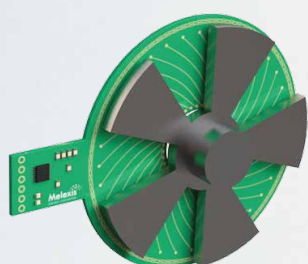


Key features

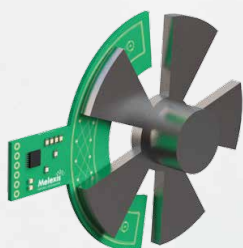
- ✓ High accuracy: maximum error $\pm 0.1\%$ FS
- ✓ Supports rotary (360°) and linear (up to 40 cm) motion
- ✓ Immune to magnetic stray fields (ISO 11452-8)
- ✓ Interface options—Analog, SENT, SPC, or PWM for a standalone module, SPI for embedded modules
- ✓ Zero latency (through programming)
- ✓ Flexible signal conditioning with 16 or 32-point programmable linear transfer characteristic
- ✓ ASIL C(D) Safety Element out of Context (ISO 26262)
- ✓ Overvoltage and reverse-polarity protection ± 24 V maximum
- ✓ Ambient operating temperature from -40°C to 160°C
- ✓ TSSOP-16 Package RoHS Compliant



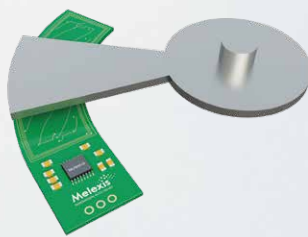
Rotary



O-shaped



C-shaped



Arc

Linear



Down to 4 mm



Up to 40 cm

Highlights

MLX90513

- ✓ Single channel input
- ✓ Option with analog output



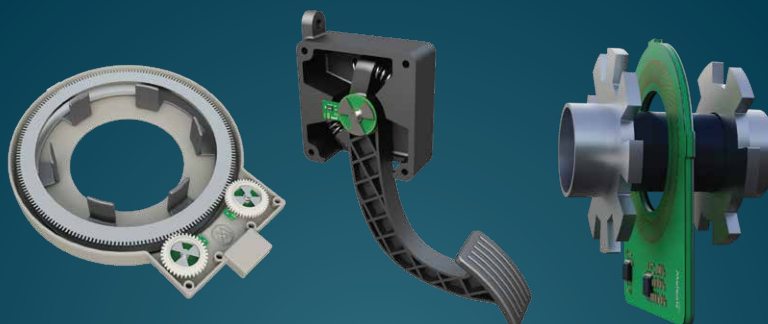
MLX90514

- ✓ Dual channel input for differential or vernier angles computed on-chip
- ✓ External PWM readout
- ✓ Option with SPI output



Applications

Pedal position
Steering angle sensing
Steering rack position
Steering torque feedback
Steering torque & angle TAS
Steering rear axle linear stroke
Ride height position
Valves position



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