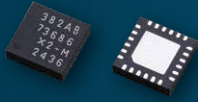
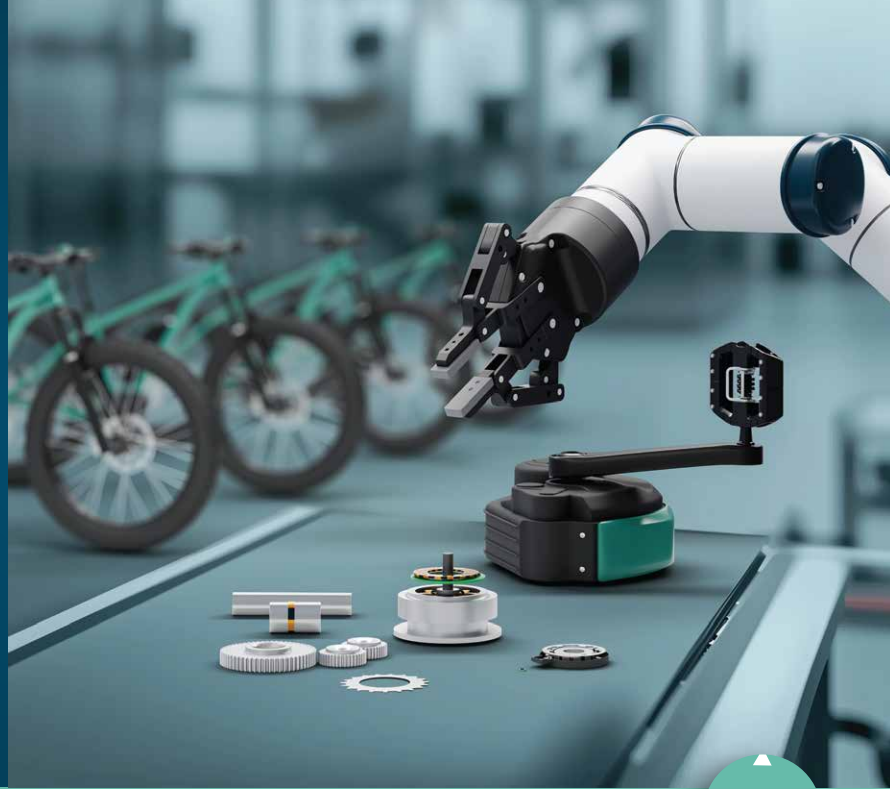


# Triaxis® High-Speed Encoder IC

MLX90382



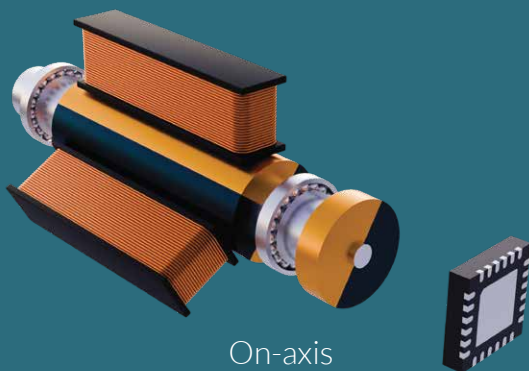
The MLX90382 is a compact, absolute magnetic encoder IC. It features stray field immunity, supports both on-axis and off-axis sensing, 14-bit resolution, differential outputs and a speed range of up to 200k e-RPM



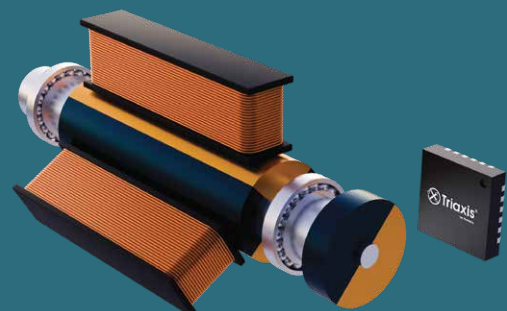
## Key features



- ✓ 14-bit High-speed magnetic encoder
  - Absolute Angle Position
  - Speed Tracking up to 200k e-rpm
- ✓ On-Chip Signal Processing with zero latency
- ✓ Operating range
  - Temperature from -40 °C to 150 °C
  - Supply for 5 V and 3.3 V applications
- ✓ Triaxis® Hall Technology
- ✓ Programmable Linear Transfer Characteristic with up to 16 points
- ✓ SIL-2 compliant
- ✓ 360° stray field immunity up to 4 kA/m
- ✓ Multiple output modes:
  - SPI/SSI/PWM
  - Single-ended and differential ABI/UVW
  - Synchronized readout of multiple devices via SPI
- ✓ Packages RoHS-compliant
  - Single-Die - QFN-24



On-axis



Off-axis

## Applications

- ✓ Robotic joints
- ✓ Weaving Machine Motors
- ✓ E-Mobility motors
- ✓ Industrial Automation



[www.melexis.com/  
MLX90382](http://www.melexis.com/MLX90382)

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