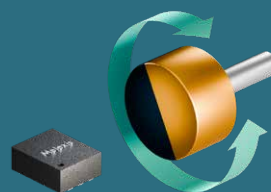
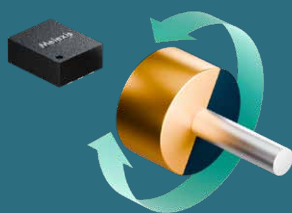
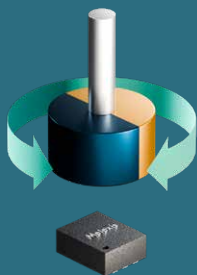
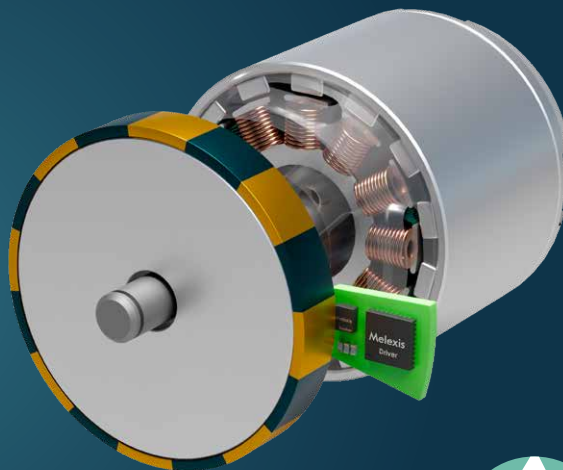


TRIAxis® PICO-RESOLVER

MLX90381

The MLX90381 is a Triaxis® 3D magnetic pico-resolver IC optimized for compact motor designs. Housed in a tiny DFN-6 package (2.0 mm x 2.5 mm), it offers total placement freedom across end-of-shaft, side-of-shaft and through-shaft setups. Featuring 3.3V/5V options, high-speed sine/cosine outputs, and ASIL B SEooC compliance, it delivers cost-effective rotor position sensing for automotive, robotics, and e-mobility applications.



KEY FEATURES

- ✓ Sine and cosine analog outputs (ratiometric)
- ✓ Output refresh rate 2μs (50'000 e-rpm)
- ✓ ISO 26262 ASIL B SEooC (Safety Element out of Context)
- ✓ AEC-Q100
- ✓ Onboard programming through I2C protocol
- ✓ Flexible mechanical design enabled by selectable magnetic field axis (X/Y - X/Z - Z/Y)



- ✓ Programmable sensitivity range:
 - mid field 10...70mT
 - high field 40...160mT
- ✓ End-of-shaft / through-shaft operation
- ✓ RoHS compliant package DFN-6 single die

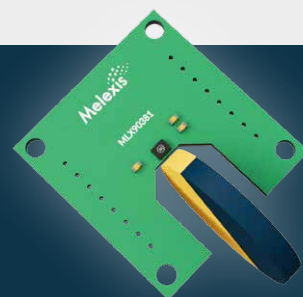


APPLICATIONS

DC & BLDC

Motor control & positioning

- Automotive e-valves
- Braking & steering
- Window lifter & seat
- Robotics finger
- E-bike & e-motorcycle traction
- E-bike cadence sensing



EVB90381 available



melexis.com/MLX90381

