

MLX90380

TRIAxis® RESOLVER

MOTOR POSITION  
SENSOR



Salmon represent our magnetic sensors because of the use magnetism for their sense of direction. This sense of direction is so strong they even can climb waterfalls.

## HIGH SPEED OPERATION AND FLEXIBLE THROUGH-SHAFT POSITIONING

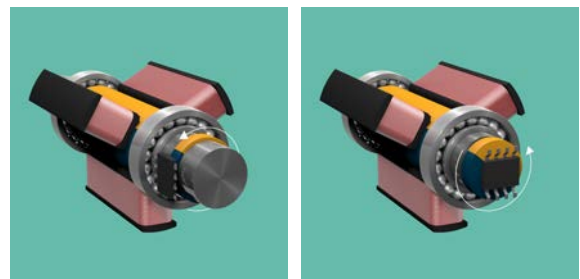
### MLX90380

MLX90380 is a fast pre-programmed magnetic resolver IC for brushless motors. It is ideally suited to automotive applications as well as other applications that need fast position readouts. Its ability to measure the absolute angle enables more efficient and safer motor control algorithms such as field oriented control algorithms. Fast in this case means 2µs sampling per field component and 4µs for two components.

The MLX90380 provides sine and cosine analog ratiometric outputs. Its option code includes the ability to select sensitivity from 10mT to 70mT and five different configurations for the magnetic field axis. Flexible mechanical designs are possible as designers can select the field component to be measured. As such, it is even possible to design off axis magnetic readouts.

### KEY FEATURES

- ✓ Sine and cosine analog outputs
- ✓ Output refresh rate: 4µs
- ✓ Flexible mechanical design enabled by selectable magnetic field axis (X/Y - X/Z - Z/Y)
- ✓ End-of-shaft / through-shaft operation
- ✓ RoHS compliant packages:
  - Single die – SOIC-8
  - Dual die fully redundant – TSSOP-16



MLX90380 is for motor commutation in brushless motors. The magnetic resolver IC can be placed off axis (left) and end-of-shaft (right).

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