

Murata SCL3400

High Performance 2-axis (XY) Inclinometer



Applications

- Structural Health Monitoring (SHM)
- Leveling & Platform Stabilization
- Tilt sensing
- Inertial Measurement Units (IMUs)
- Positioning and guidance systems

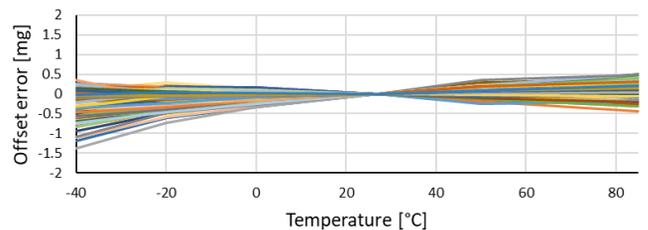
Features

- Single package 2-axis High Performance inclinometer sensor
- Based on Murata's proven 3D-MEMS technology
- Extremely stable output over wide range of temperature and vibration
- 3.0V - 3.6V supply voltage
- Two user selectable measurement modes:
 - ±30° (0.5 g) with 10 Hz LPF
 - ±90° (1.1 g) with 40 Hz LPF
- Advanced self-diagnostics features
- 12 pin pre-molded housing, suitable for SMD mounting
- Size 8.6 x 7.6 x 3.3 mm (l x w x h)
- Compatible with RoHS and EV directives

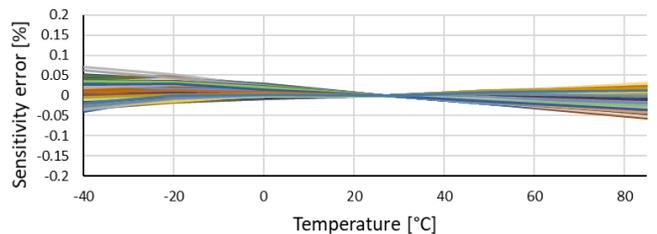
Performance

- Ultra-low noise density 16 $\mu\text{g}/\sqrt{\text{Hz}}$
- Typical offset drift over lifetime $\leq 0.05^\circ$
- Sensitivity error $\pm 0.7\%$
- Temperature range $-40\dots+85^\circ\text{C}$
- Resolution up to 32768 LSB/g

Offset temperature dependency



Sensitivity temperature dependency



Long term stability

