

## INTRODUCING

# AXISENSE-G GYRO STABILIZED TILT SENSOR

- Provide highly accurate tilt sensor outputs
- Minimize distortion in multiple noisy environments



Worldwide safety regulations in agriculture and construction vehicles/equipment are becoming ever-more rigorous. From an excavator digging trenches to a boom lift to pick cherries or install overland lines, tilt sensors confirm that safety demands and increased uptime are met. TE Connectivity's (TE) AXISENSE-G is the next generation tilt sensor offering highly accurate outputs, that can withstand dynamic and harsh environments.

The AXISENSE-G uses a combination of sensors to measure the acceleration, rotation rate, and temperature. Algorithms use this data to calculate a highly accurate, fast output signal. Carefully designed signal conditioning with low distortion, custom filter levels, and options to customize noise outputs, allow the sensor to be used in multiple noisy environments. It can simultaneously measure pitch and roll angles of up to  $\pm 75^\circ$  and offers a significantly lower noise output with a fast response time of  $<100$  ms.

## APPLICATIONS

- Stationary and Mobile Cranes and Hoists
- Forklifts and Material Handling Equipment
- Dump Trucks
- Vehicle Chassis Levelling
- Excavation Equipment
- Agricultural Machines
- Road Paving Equipment
- Scissor and Man Lifts

## KEY BENEFITS

- Utilize gyroscope compensation with MEMS sensing elements and Kalman filtering to provide high accurate tilt sensor outputs
- Minimize distortion in multiple noisy environments with custom filter levels and options to customize noise outputs
- Facilitate highly accurate tilt sensor output by simultaneously measuring pitch and roll angles of up to  $\pm 75^\circ$  with operating temperature ranging from  $-40^\circ\text{C}$  to  $+85^\circ\text{C}$
- Ensure significantly lower noise output with a fast response time of  $<100$  ms
- Enable easy to install compact sensor (70.5 x 45 x 15 mm) with a high impact plastic housing
- Provide excellent protection in harsh and dynamic environments with IP67 rating and available as CAN J1939 and USB output

## TARGET MARKETS

- Industrial & Commercial Transportation

## PERFORMANCE

- Measurement Range:  $\pm 75^\circ$
- Static Accuracy:  $\pm 0.5^\circ$
- Dynamic Accuracy:  $\pm 1.5^\circ$
- Resolution:  $0.01^\circ$
- Fast Response Time:  $<100$  ms
- Excitation Voltage  $V_{DC}$ : 8 to 36 V
- Operating Temperature:  $-40^\circ\text{C}$  to  $85^\circ\text{C}$
- Package Size: 70.5 x 45 x 15 mm
- Technology: MEMS
- Axes: 2
- Environmental Rating: IP67

## LEARN MORE

[AXISENSE-G Model Detail Page](#)

[AXISENSE-G Datasheet](#)

[AXISENSE-G Solution Guide](#)

[AXISENSE-G Video](#)