Amphenol Sensors

Connecting your world through Sensor Innovations

Commercial Aerospace

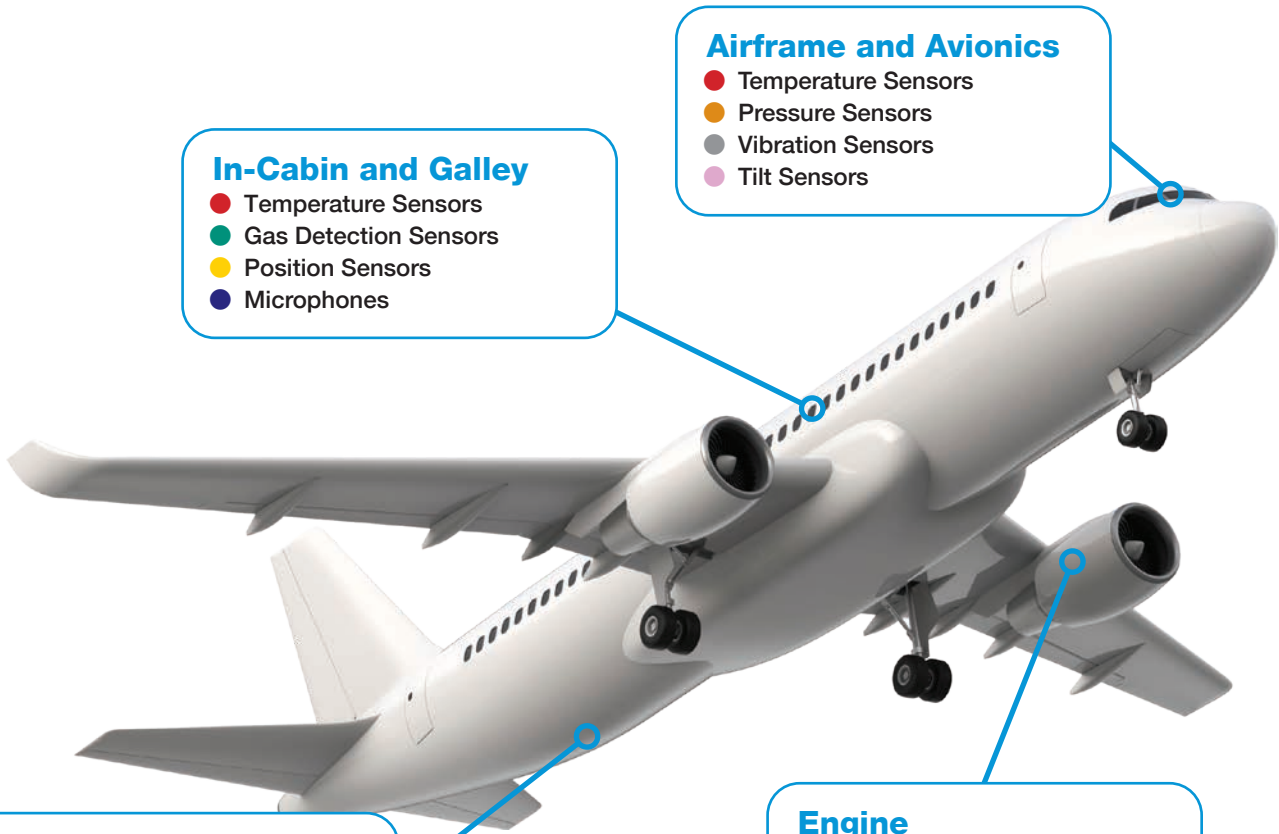
Amphenol Sensors is a leading innovator in sensor technologies and measurement solutions. Offering the most diverse sensor portfolio of standard and customized products for the world's most demanding regulatory and industry-driven applications, Amphenol creates value by providing critical information for real-time decisions.

With its breadth of sensor capabilities and technologies, Amphenol Sensors provides solutions that make commercial air travel safe and efficient. From cabin comfort to aircraft ice protection, our sensors play an integral part in many aerospace applications, including avionics, engines, fuel systems, airframe and in-cabin environment. And, just as the industry needs and trends are evolving, Amphenol Sensors is constantly evolving to integrate and enhance available sensor technologies for next-generation solutions.

Amphenol Sensors

Commercial Aerospace Sensor Solutions

Temperature · Pressure · Gas · Speed · Position · Fluid Level · Acoustics · Vibration · Tilt · Current



WIND TUNNEL TESTING

Pressure Sensors

Aerodynamic testing

- Piezoresistive pressure sensors for static accuracy
- Piezoelectric pressure sensors for turbulent and shock waves

Accelerometers

- Shock and vibration of wind tunnel models

Microphones

- Aero-acoustic testing
- External surface noise on aircraft

FLIGHT AND GROUND TESTING

Pressure Sensors

Aerodynamic testing

- Piezoresistive pressure sensors for static accuracy
- Piezoelectric pressure sensors for turbulent flow and shock waves

Accelerometers

- Shock and vibration of aircraft and helicopters

Microphones

- Aero-acoustic testing
- External surface noise
- Cabin noise testing

AIRFRAME AND AVIONICS

Temperature Sensors

Prevents ice formation on vanes during flight.

- Self-regulating properties - power will adjust to prevailing conditions with ~10x variation in output
- Higher reliability than wire-wound products
- Special shapes suit customer design

THERMOMETRICS
EXATHERMOMETRICS

Temperature Sensors

Precision temperature measurement of in-flight instrumentation and climate control.

- Excellent long-term stability
- High reliability
- Multiple rugged configurations available

THERMOMETRICS
EXATHERMOMETRICS

Pressure Sensors

Used in instrumentation for airspeed indication and during flight test for aerodynamic measurements.

- Low long-term drift
- High stability and repeatability

NOVA SENSOR
ENDEVCO
PCB PIEZOTRONICS

Ultra Low Pressure Sensors

Used in instrumentation for barometric pressure/weather monitoring.

- Calibrated to –40°C to 125°C
- High stability and repeatability
- Digital output: 14 bit or 18 bit

ALL SENSORS an Amphenol company
ENDEVCO

Tilt Sensors

- Analog and CAN output
- Dual axis combined gyroscope and accelerometer
- Fully sealed (IP69K) for use in harsh environments
- Operating temperature from -40°C to +85°C

PIHER sensing systems

ENGINE

Speed & Position Sensors

Monitors wheel speed

- Variable reluctance, hall effect, or magneto resistive sensors
- Zero speed, large air gap capability
- Packaged to resist harsh environments
- Customizable options

SSI

Ultrasonic Fluid Level Sensors

Continuously monitors liquid levels within tank or reservoir, including fuel, coolant and hydraulic fluids.

- High accuracy
- Robust, non-contact sensing
- Slosh filtering
- Customizable options

Piezo Technologies™

Vibration Sensors

Continuously monitoring engine balance.

- Early fault detection
- Compact sensor placement
- High sensitivity and extremely low noise
- Suitable for temperatures from -400°F to +1400°F

PCB PIEZOTRONICS
ENDEVCO

ENGINE (cont.)

Pressure Sensors

Combustion instability measurement.

- Fast response time
- High accuracy
- Long-term stability and repeatability
- Suitable for temperatures from -400°F to +1400°F

PCB PIEZOTRONICS
ENDEVCO

Current Sensors

Based on open-loop Hall-effect and coreless TMR technology.

- Busbar, integrated busbar, flanged and wire mounting
- Simple or redundant analog ratiometric output
- Measured values of up to ±4,000A

PIHER sensing systems

IN-CABIN AND GALLEY

Temperature Sensors

Provides in-flight temperature control for cabin comfort and service items.

- High accuracy
- Long-term stability
- Rugged design for maximum protection and direct immersion in liquids or gases

THERMOMETRICS
EXATHERMOMETRICS

Gas Detection Sensors

Detection of hydrocarbon gases that indicate fuel leakage.

- 0 to 10,000 ppm
- Linearized digital output
- Mechanically robust

SGX SENSORTECH

Monitoring air quality

- Detectable gases: VOCs, CO_2, ozone, NO_2, NH_3
- Custom & robust packaging options

Position Sensors

Detects when seatbelt is latched and provides alert to enforce mandatory usage during takeoff and landing.

- Sealed for harsh environments
- Selectable working principle: Hall effect/reed switch
- Robust and reliable modular design

PIHER sensing systems

Position Sensors

Detects position of overhead storage door and provides alert when door is not fully closed to prevent it from opening during flight.

- Miniature switch or position sensor
- Digital output
- Surface mount device (SMD) version

PIHER sensing systems

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FUEL SYSTEMS

Pressure Sensors

Measures fluid levels within the fuel system.

- Long-term stability
- High accuracy and repeatability

Gas Detection Sensors

Detects the presence of certain gases that indicate fuel leakage.

- 0 to 100% LEL
- Approved EX-d
- Mechanically robust

Position Sensors

Provides liquid level feedback within the fuel system.

- Sealed for harsh environments
- Selectable working principle: Hall effect/reed switch
- Robust and reliable modular design

Scan the QR code to access our library of resources

www.amphenolsensors.com

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AAS-BR-253F - 04/2024