

Amphenol Sensors

Connecting your world through
Sensing Innovations

Military Applications

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.

For Military Applications, Amphenol Sensors provides advanced engineering design and product offerings to solve diverse challenges across today's sophisticated military technologies and rugged applications. We provide sensor solutions for military aircraft, ground systems, vehicles, missiles, munitions, soldier-worn systems, unmanned systems, underwater naval applications and space satellites.



Amphenol Sensors

Military Sensor Solutions

● Temperature ● Pressure ● Gas ● Vibration ● Position ● Level ● Shock & G

Soldier-Worn Systems

- Temperature Sensors
- Pressure Sensors



Ground Vehicles

- Pressure Sensors
- Gas Detection Sensors
- Position Sensors
- Ultrasonic Level & Concentration Sensors
- Vibration Sensors



Military Aircraft

- Gas Detection Sensors
- Pressure Sensors
- Vibration Sensors
- Ultrasonic Level Sensors



Missiles • Munitions • Torpedoes

- Temperature Sensors
- Pressure Sensors
- Gas Detection Sensors
- Shock & G Sensors



Naval

- Vibration Sensors



Space

- Temperature Sensors
- Pressure Sensors



SOLDIER-WORN SYSTEMS

Temperature Sensors

Applications: Various

- High accuracy • Proven reliability
- Various temperature and resistance values



Pressure Sensors

Application: Blast gauge

- High stability • Miniature size
- Low power requirements • Board-mounted



GROUND VEHICLES

Pressure Sensors

Applications: Engine fuel and air filter, transmission fluid

- High accuracy • Harsh media compatibility



Gas Detection Sensors

Application: Fuel leakage

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



Position Sensors

Application: Multi-turn steering wheel angle

- Patented through-hole solution
- Long life for harsh environments



Ultrasonic Level & Concentration Sensors

Applications: Fuel, coolant, hydraulic fluid, DEF SCR systems

- Continuous monitoring • $\pm 1\%$ accuracy
- Robust, non-contact sensing

Applications: Wheel speed, engine speed and position

- Variable reluctance, active hall effect or magneto resistive sensors • Zero speed, large air gap capability



Vibration Sensors

Application: Vibration HUMS

- Rugged • Reliable • Durable
- Condition-based maintenance of vibrating / rotating parts



MISSILES • MUNITIONS • TORPEDOES

Temperature Sensors

Applications: Torpedo guidance and tracking

- High accuracy • Proven reliability
- Various temperature and resistance values



Pressure Sensors

Application: Torpedoes

- Calibrated -55°C to 200°C
- Robust and rugged • Long-term stability



Gas Detection Sensors

Application: Fuel leakage

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



Shock & G Sensors

Applications: Fuzing and alarming

- Accelerometers
- Rugged • Reliable • Durable



MILITARY AIRCRAFT

Gas Detection Sensors

Application: Jet fuel leakage

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



Ultra Low Pressure Sensors

Applications: Test/simulation, unmanned aerial vehicles (UAV)

- High stability • High repeatability
- Total error band • Compact size



Applications: General military grade and barometric pressure

- Calibrated -40°C to 125°C • High stability and repeatability
- Digital and amplified outputs

Vibration Sensors

Application: Vibration HUMS

- Rugged • Reliable • Durable
- Condition-based maintenance of vibrating / rotating parts



Ultrasonic Level Sensors

Applications: Fuel, coolant, hydraulic fluid, DEF SCR systems

- Continuous monitoring • $\pm 1\%$ accuracy
- Robust, non-contact sensing



Applications: Helicopter landing gear and fuel systems

- Absolute, gauge and sealed gauge
- From 3 psi to 7500 psi • $\pm 1\%$ accuracy

NAVAL

Vibration Sensors

Applications: Underwater acoustics, ordinance monitoring

- Ultra low-noise internal amplifier
- Encapsulated in polyurethane



Application: Underwater

- High pressure rating • High sensitivity
- Wide frequency range
- Ground isolated to eliminate ground loops

Applications: Towed arrays, sonobuoys, deep ocean

- Incorporates low-noise preamplifier with calibration circuit
- Electrostatically shielded and molded in polyurethane

Applications: Underwater unmanned vehicles (UUV), towed arrays, ACOMM

- 4-channel combination: Orthogonal axis accelerometers and omnidirectional hydrophone • Improved signal-to-noise ratio

SPACE

Temperature Sensors

Application: Atomic clock

- Long-term stability • Proven reliability
- All definitions and test methods per MIL-PRF-23648



Pressure Sensors

Application: Satellite propulsion

- Robust and rugged • Long-term stability
- High repeatability • High accuracy



Sensor Technologies

MAJOR MARKETS SERVED	Thermometrics, Inc. Temperature	Telaire Gas & Moisture	NovaSensor Pressure	Protimeter Moisture Meters	Kaye Thermal Validation	SGX Sensortech Gas	Piher Sensing Systems Position	Wilcoxon Sensing Technologies Vibration	Piezo Technologies Ultrasonic	i2s Pressure & Temperature	All Sensors Ultra Low Pressure	SSI Technologies Level, Quality & Pressure	Exa Thermometrics Temperature
Aerospace (Commercial)	●		●			●	●				●	●	●
Agriculture	●	●		●		●	●			●		●	●
Air Quality (Indoor)	●	●	●	●		●	●	●			●	●	●
Automation	●	●					●	●			●		●
Automotive	●	●	●			●	●			●		●	●
Construction & Restoration				●								●	
Electrification (EV/HEV)	●	●	●			●	●			●		●	●
Energy	●					●		●	●				●
Environmental Monitoring					●	●					●		
Heavy Equipment & Off-Road (HVO)	●		●			●	●			●		●	●
HVACR	●	●	●			●	●	●		●	●	●	●
Industrial	●	●	●	●		●	●	●		●	●	●	●
Marine	●					●	●	●				●	
Medical	●	●	●		●		●		●		●	●	
MILITARY	●		●			●	●	●	●		●	●	
Ground Vehicles			●			●	●	●				●	
Military Aircraft						●		●			●	●	
Missiles • Munitions • Torpedoes	●		●			●		●					
Naval								●					
Space	●		●										
Soldier-Worn Systems	●		●										
Non-Destructive Testing (NDT)									●				
Oil & Gas	●		●			●	●	●	●		●	●	●
Pharmaceutical & Biotech					●						●	●	
Process Control	●	●	●			●	●	●		●	●	●	●
Railway	●							●				●	●
Thermal Validation					●								

Amphenol
Sensors

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