

Amphenol Sensors

Connecting your world through
Sensor Innovations

Industrial HVACR

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 changes in regulations and increasing consumer emphasis on improved quality of life, the demand for more energy efficient buildings and improved air quality in the workplace has never been so important. Not to mention, growing energy costs and worsening outdoor pollution are compounding efforts by HVACR (Heating, Ventilation, Air Conditioning, and Refrigeration) system designers to leverage sensor capabilities to make indoor environments healthy and efficient.

Amphenol Sensors' extensive range of sensor solutions and capabilities are at the forefront of the HVACR industry. Our product offerings are simple to integrate and provide the very latest in sensor technology, backed by extensive engineering resources and manufacturing expertise.



Amphenol Sensors

Industrial HVACR Sensor Solutions

💡 Energy Efficiency

🌿 Indoor Air Quality

● Temperature ● Pressure ● Gas ● Humidity ● Vibration ● Position ● Fluid Level

Outdoor Air

- Temperature Sensors
- Pressure Sensors
- Gas Sensors (CO₂, VOC, Flammable, Toxic)
- Humidity Sensors

Air Handling Unit

- Temperature Sensors
- Pressure Sensors
- Gas Sensors (CO₂, Refrigerant)
- Humidity Sensors
- Vibration Sensors
- Position Sensors

Duct Measurement

- Temperature Sensors
- Pressure Sensors
- Gas Sensors (CO₂)
- Humidity Sensors

Filter Monitoring

- Pressure Sensors
- Gas Sensors (VOC)

Room Monitoring

- Temperature Sensors
- Pressure Sensors
- Gas Sensors (CO₂, VOC)
- Humidity Sensors

Water Management

- Temperature Sensors
- Pressure Sensors
- Vibration Sensors
- Ultrasonic Fluid Level & Concentration Sensors

Building Pressurization

- Pressure Sensors

Boiler Control

- Temperature Sensors
- Pressure Sensors
- Combined Pressure & Temperature Sensors
- Vibration Sensors

Chiller Control

- Temperature Sensors
- Pressure Sensors
- Combined Pressure & Temperature Sensors
- Vibration Sensors

OUTDOOR AIR • DUCT MEASUREMENT ROOM & FILTER MONITORING

Temperature Sensors

- Robust design for harsh environments
- Thermal cut-off fuses for added safety
- Customizations available



Gas Sensors (CO₂)

- OEM and sensors and transmitters
- NDIR dual and single channel technology
- Connectivity to Building Automation Systems



Gas Sensors (VOC, Flammable and Toxic)

- Detectable gases: VOC, NO, NO₂, NH₃
- 1000 ppb to 1000 ppm



Humidity Sensors

- Duct- and wall-mounted transmitters
- Fully-calibrated OEM sensors
- Connectivity to building automation systems



Pressure Sensors

- High stability, accuracy and over-pressure
- Low drift



Ultra Low Pressure Sensors

- High sensitivity, stability and repeatability
- Compact package size
- Analog and digital output



AIR HANDLING UNIT

Temperature Sensors

- Robust design for harsh environments
- Thermal cut-off fuses for added safety
- Customizations available



Gas Sensors (CO₂)

- Lifetime calibration
- Outputs: I²C, UART, BACnet and analog
- Combination models with CO₂, humidity and temperature



Gas Sensors (Refrigerant)

- Detectable gases: R290, NH₃, R454, R32, R1234
- Outputs: linearized and analog voltage
- 500/1000 ppm to 100% LEL



Humidity Sensors

- Transmitters and OEM sensors
- Field replaceable sensors
- High IP rating protection



Pressure Sensors

- Types: absolute, vented gauge and sealed gauge
- Stainless steel, robust for harsh environments
- Pressure range: 3 psi - 7500 psi



Ultra Low Pressure Sensors

- Air flow: monitoring and control
- Pressure ranges: 0.25 inch H₂O to 150 psi
- Outputs: analog and digital



Position Sensors

- Flap motor positioning
- High accuracy (2% linearity)
- Low-cost and long life



Vibration Sensors

- Condition monitoring for fault detection of fans and motors
- Optimized performance and equipment life



BOILER & CHILLER CONTROL

Temperature Sensors

- Robust design for harsh environments
- Thermal cut-off fuses for added safety
- Customizations available



Pressure Sensors

- Types: absolute, vented gauge and sealed gauge
- Stainless steel, robust for harsh environments
- Pressure range: 3 psi - 7500 psi



Pressure Sensors

- Internal metal-to-metal sealing
- Stainless steel element with excellent long-term stability



Combined Pressure & Temperature Sensors

- High pressure and temperature accuracy
- Compatible to all currently used coolants
- Low (up to 600 psi) and high (up to 2900 psi) versions available



Vibration Sensors

- Condition monitoring for fault detection of components
- Maximizes performance and reduces downtime



WATER MANAGEMENT

Temperature Sensors

- Robust design for harsh environments
- Thermal cut-off fuses for added safety
- Customizations available



Pressure Sensors

- Media compatibility
- High stability, repeatability and over-pressure



Vibration Sensors

- Vibration monitoring of pumps with alarms
- Maintain water usage throughout buildings



Ultrasonic Fluid Level & Concentration Sensors

- Continuous monitoring of fluid level and concentration
- High accuracy
- Robust, non-contact sensing with slosh and aeration filtering
- Customizable options



BUILDING PRESSURIZATION

Pressure Sensors

- Differential Pressure (DP) measurement
- Duct-mounted transmitters



Pressure Sensors

- High stability, accuracy and over-pressure
- Low drift



Ultra Low Pressure Sensors

- High sensitivity and repeatability
- Compact package size



Pressure Sensors

- Internal metal-to-metal sealing
- Stainless steel element with excellent long-term stability



Pressure Sensors

- Types: absolute, vented gauge and sealed gauge
- Stainless steel, robust for harsh environments
- Pressure range: 3 psi - 7500 psi



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, Speed, Current	Wilcoxon Sensing Technologies Vibration	Piezo Technologies Ultrasonic	i2s Pressure & Temperature	All Sensors Ultra Low Pressure	SSI Technologies Level, Concentration, Speed & Pressure	Exa Thermometrics Temperature	PCB Piezotronics Vibration, Pressure, Force & Acoustics	Endevco Vibration, Pressure & MEMS	Temposonics Position, Velocity, Level
Aerospace (Commercial)	●		●			●	●				●	●	●	●	●	●
Agriculture	●	●		●		●	●			●	●	●	●	●		●
Air Quality (Indoor)	●	●	●	●		●	●	●			●	●	●	●		
Automation	●	●					●	●			●		●	●		●
Automotive	●	●	●			●	●			●		●	●	●	●	●
Construction & Restoration				●								●		●		●
Vehicle Electrification	●	●	●			●	●			●		●	●	●	●	●
Energy	●					●		●			●		●	●		●
Environmental Monitoring					●	●					●					●
Heavy Vehicle & Off-Road (HVOR)	●		●			●	●			●		●	●	●	●	●
HVACR	●	●	●			●	●	●		●	●	●	●	●		
Air Handling Unit	●	●				●	●	●			●	●	●	●		
Boiler Control	●							●		●		●	●	●		
Building Pressurization		●	●							●	●	●				
Chiller Control	●							●		●		●	●	●		
Duct Measurement	●	●	●								●		●			
Filter Monitoring		●	●			●					●					
Outdoor Air	●	●				●					●		●			
Room Monitoring	●	●	●			●		●			●		●			
Water Management	●		●									●	●	●		
Industrial	●	●	●	●		●	●	●		●	●	●	●	●		●
Marine	●					●	●	●			●	●		●		●
Medical	●	●	●		●	●	●		●		●	●				●
Military	●		●			●		●	●		●	●		●	●	●
Non-Destructive Testing (NDT)									●							
Oil & Gas	●		●			●	●	●	●		●	●	●	●		●
Pharmaceutical & Biotech					●	●					●	●		●		●
Process Control	●	●	●			●	●	●		●	●	●	●	●		●
Railway	●					●		●			●	●	●	●	●	●
Thermal Validation					●											