Amphenol Sensors

Connecting your world through Sensing 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.

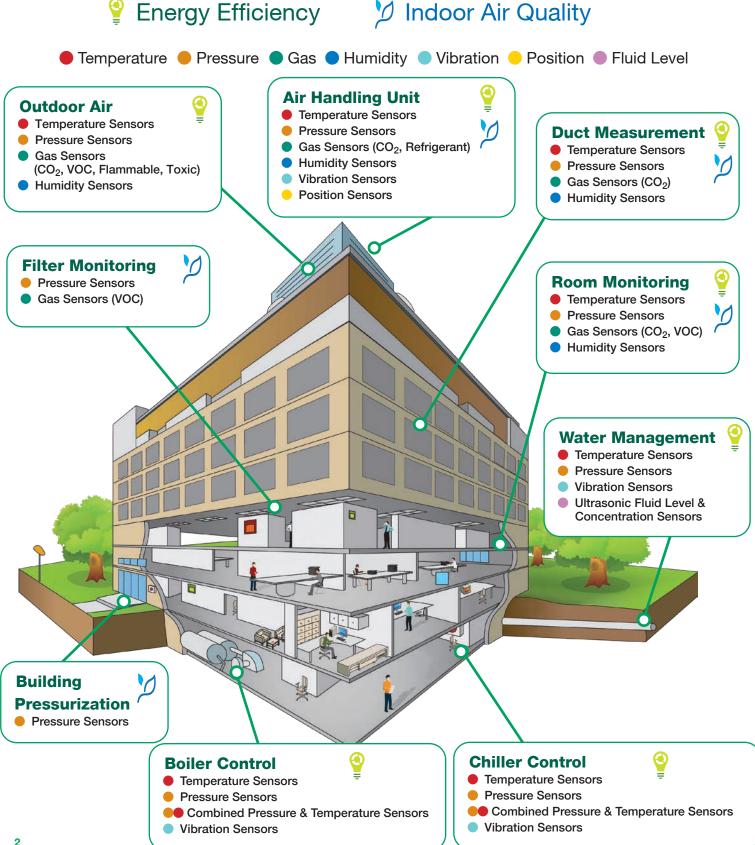
With changes in regulations and increasing consumer emphasis on improved quality of life, the demand for more energy efficient buildings and improved air quality in the workplace has never been so important. Not to mention, growing energy costs and worsening outdoor pollution are compounding efforts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

That is why 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



OUTDOOR AIR • DUCT MEASUREMENT ROOM & FILTER MONITORING

Temperature Sensors

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



EXATHERMOMETRICS

TELAIRE

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



TELAIRE



AIR HANDLING UNIT

Temperature Sensors

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

THERMOMETRICS **EXA**THERMOMETRICS

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



TELAIRE

TELAIRE

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: 3psi 7500psi

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



PIHER sensing systems

BOILER & CHILLER CONTROL

Temperature Sensors

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



EXATHERMOMETRICS

Pressure Sensors

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

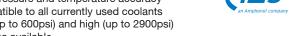
Pressure Sensors

- 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 600psi) and high (up to 2900psi) 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

THERMOMETRICS

EXATHERMOMETRICS

Pressure Sensors

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

Vibration Sensors

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

Wilcoxon

TELAIRE

Ultrasonic Fluid Level & Concentration Sensors

- Continuous monitoring of fluid level and concentration
- 1% accuracy
- Robust, non-contact sensing with slosh and aeration filterina



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: 3psi 7500psi





| 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 (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 | | | | | • | | | | | | | | |



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