Amphenol Sensors

Connecting your world through Sensor Innovations

Automotive Solutions

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.

Amphenol Sensors is your best source for automotive sensors, offering the technology that brings your systems together—to protect the vehicle, its occupants and the environment.

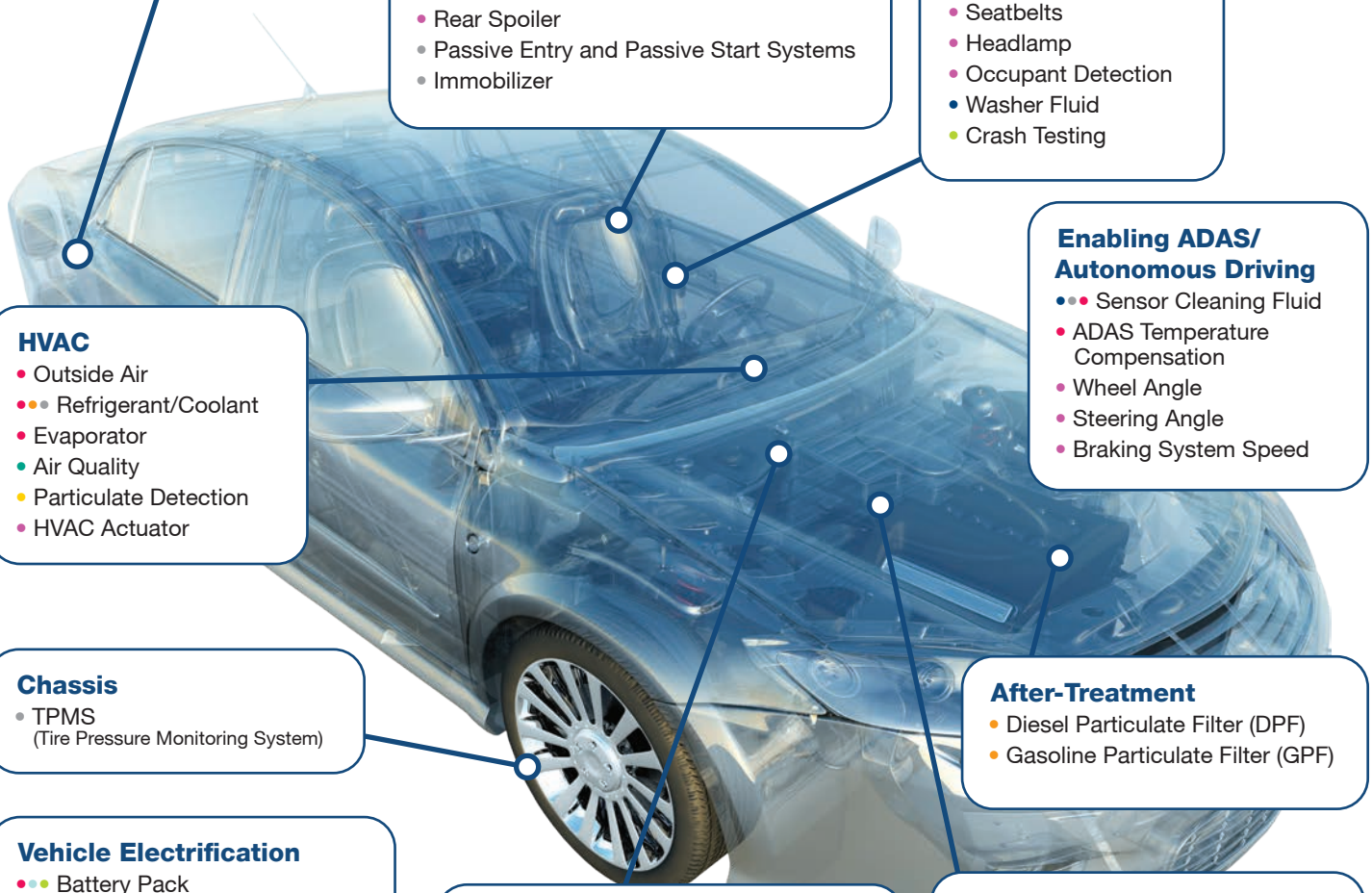
Consider us your global partner for all of your automotive sensor needs. We deliver innovative solutions and high-performing products with the finest customer support—bringing the best results to you and your customers.

Amphenol Sensors

Automotive Sensor Solutions

Temperature · Pressure · Gas · Humidity · Dust/Particulates · Position/Speed

Current · Level · Combination · Acoustics · Acceleration



Cabin Comfort
- Discharge Air
- Steering Wheel
- Seats
- Fresh Air Ventilation
- Dewpoint
- Cabin Air Filter
- Particulate Detection
- HMI Controls
- Mirror / Seat Memory
- Cabin Noise
- NVH
- Rear Spoiler
- Passive Entry and Passive Start Systems
- Immobilizer

Fuel Handling System
- Fuel
- Fuel Rail
- Fuel Vapor
- Fuel Tank
- Exhaust Gas
- EVAP

Safety Systems
- Steering Wheel
- Seats
- Defog
- Battery
- Leak Detection
- Driver Alertness
- Brakes
- Airbags
- Seatbelts
- Headlamp
- Occupant Detection
- Washer Fluid
- Crash Testing

Enabling ADAS/ Autonomous Driving
- Sensor Cleaning Fluid
- ADAS Temperature Compensation
- Wheel Angle
- Steering Angle
- Braking System Speed

HVAC
- Outside Air
- Refrigerant/Coolant
- Evaporator
- Air Quality
- Particulate Detection
- HVAC Actuator

Chassis
- TPMS (Tire Pressure Monitoring System)

After-Treatment
- Diesel Particulate Filter (DPF)
- Gasoline Particulate Filter (GPF)

Vehicle Electrification
- Battery Pack
- Thermal Runaway
- Cell Connection System (CCS)
- High Voltage Charger Connector
- Power Inverter / E-Motor
- Battery Coolant
- Motor Coil
- Fuel Cell

Powertrain
- Transmission - Fluid, Oil
- Transmission - Gearbox, Park Lock, Speed
- Power Steering
- EURO-6 Urea
- Powertrain Development
- E-Axle

Internal Combustion Engine Management
- Engine Air
- Engine Oil
- Coolant
- Intake Air
- Exhaust Gas Recirculation (EGR)
- Cylinder Head
- MAP/TMAP
- De-ionized Water Injection

INTERNAL COMBUSTION ENGINE, POWERTRAIN, AND ELECTRIC VEHICLE

Temperature Sensors
- High accuracy • High stability
- Noise-immune NTC option
- Fast response time
- Combination sensor options
- Customized to application
- Metallurgical bond glass-coated NTC option

Pressure Sensors
- High accuracy
- High performance
- Long-term stability
- Custom options

Level, Concentration & Conductivity Sensors
- High accuracy
- Detects proper fluid fill and contaminants
- Customizable options

Position Sensors
- Through-shaft, end-of-shaft 2-piece and ARC/offaxis configurations
- Non-contact inductive and hall-effect technologies
- Accurate output at high speeds
- Reliable in harsh environments

Combined Pressure & Temperature Sensors
- High accuracy • Oil resistant
- Wide temperature range: -40°C to 150°C
- Robust against pressure spikes

Accelerometers
- Wide frequency ranges available
- Single and triaxial configurations
- Robust design for demanding environments
- Various mounting methods
- Electrically isolated
- High sensitivity and low noise

Gas Detection Sensors
- Sensitivity to multiple gases: H_2/CO_2/NH_3/CO
- Temperature / Humidity Sensor
- Pressure sensor (20 up to 250 kPa)
- Fast response time: <1 second
- IP6K7 rating

Cell Connection System (CCS)
- High current circuit for battery cell connectivity
- Available styles: Wire Harness and Flexible Printed Circuit (FPC)

Current Sensor
- 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

AFTER-TREATMENT

Temperature Sensors
- High accuracy • High stability
- Integral/pigtail options
- Fast response time • Right angle and straight probe options

DEF Level, Temperature & Concentration Sensors
- High Accuracy
- Continuous monitoring
- Meets highest worldwide emissions regulations
- Programmable for custom and irregular shape tanks

Pressure Sensors
- High reliability
- High accuracy
- Up/downstream pressure
- Customizable design
- Compatible w/ exhaust gas media and acid condensates

SAFETY SYSTEMS

Temperature Sensors
- Fast response time • High accuracy
- High stability
- Proven reliability
- Deep domain expertise
- Duplicate manufacturing locations

Pressure Sensors
- Fast response time • High accuracy
- Long-term stability
- Custom options
- Diagnostic and protective features (ASIL)

CO_2 Gas Sensors
- Self-calibration
- Low power consumption
- Compact design
- LIN bus communication
- Custom packaging options

Position Sensors
- Robust and reliable modular design
- Selectable working principle: potentiometric, hall effect, and reed switch

Level, Quality, and Concentration Sensors
- High accuracy
- Continuous monitoring for fluid contamination
- Programmable for irregular shape tanks
- Customizable options

Accelerometers
- Wide frequency ranges available
- Single and triaxial configurations
- Robust design for demanding environments
- Various mounting methods
- Electrically isolated
- High sensitivity and low noise

Position and Level Sensors
- Absolute, non-contact measurement
- Highest reliability
- Robust and compact design for harsh environments

ENABLING ADAS AND AUTONOMOUS DRIVING

Level, Concentration and Alcohol Content Sensors
- High accuracy
- Continuous monitoring
- Freeze prediction

Temperature Sensors
- High accuracy
- High stability
- Customized to application

Position/Speed Sensors
- High accuracy
- Custom design, cable or connector interface
- Durable and robust package
- Stable performance in harsh environmental condition

FUEL HANDLING SYSTEM

Temperature Sensors
- High accuracy • High stability
- Integral/pigtail options
- Combination sensor options

Pressure Sensors
- High accuracy • High performance
- Long-term stability
- Custom options

Position and Level Sensors
- Absolute, non-contact measurement
- Highest reliability
- Robust and compact design for harsh environments

CHASSIS

TPMS (Tire Pressure Monitoring System)
- High accuracy
- 24/7 operation
- CAN Bus integration
- Low power consumption: 7 years battery life
- Pressure range: up to 14 bar
- Autolocation feature

CABIN COMFORT

Temperature Sensors
- High accuracy • High stability
- Noise-immune NTC option
- Moisture resistant
- Fast response time

Pressure Sensors
- High performance
- High accuracy
- Customizable design
- Multiple output options

Gas Detection Sensors
- Detectable gases: CO_2, CO, NO_2, NH_3
- PWM and LIN bus
- Custom packaging options

Dew Point Sensors
- Combined temperature and humidity measurement
- PWM and LIN bus
- Custom package options

Dust Particulate Sensors
- PM2.5
- Laser detection
- Fast response
- High accuracy

Position Sensors
- Low profile
- Excellent resolution
- Custom form-factor ready
- Linear and rotary position feedback

Passive Entry and Passive Start Systems
- Anti-theft
- Long-range PEPS
- Short-range immobilizer
- Encrypted CAN Bus
- CE/FCC certified

Acoustic Sensors
- Specialized microphones for a wide variety of applications
- High temperature, water and dust-resistant models available
- High accuracy

Accelerometers
- Wide frequency ranges available
- Single and triaxial configurations
- Robust design for demanding environments
- Various mounting methods
- Electrically isolated
- High sensitivity and low noise

Position Level Sensors
- Absolute, non-contact measurement
- Highest reliability
- Robust and compact design for harsh environments

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HVAC

Temperature Sensors
- High accuracy • High stability
- Noise-immune NTC option
- Moisture resistant
- Fast response time

Position Sensors
- Through-shaft, end-of shaft, ARC and 2-piece touchless technology
- Long life • Low hysteresis • Low current consumption
- Excellent resolution and linearity
- Field-proven • Custom connectors and wires

Pressure Sensors
- Leakproof • High accuracy
- Harsh Media compatibility

Gas Detection Sensors
- Detectable gases: CO_2, CO, NO_2, NH_3
- PWM and LIN bus
- Custom packaging options

Dust Particulate Sensors
- PM2.5
- Laser detection
- Fast response
- High accuracy

Combined Pressure & Temperature Sensors
- Compatible to coolants such as R134a, R1234yf, R744
- High accuracy and fast response time
- Wide pressure range: 10 bar to 200 bar
- LIN output with diagnostic features

Scan the QR code to access our library of resources

www.amphenolsensors.com

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