Amphenol Sensors

Connecting your world through Sensor Innovations

Heavy Vehicle & Off-Road (HVOR)

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.

Efficiency under high demand. For agriculture, farm, and construction, Amphenol Sensors combines its expertise in automotive sensors with the high demands inherent of heavy equipment.

Our sensors maximize the efficiency and lifetime of your heavy equipment, which translates to improved operational costs, operator safety and environmental compliance.



Amphenol Sensors

HVOR Sensor Solutions



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

Engine Management

- Engine Air
- Engine Oil
- Coolant
- Intake Air
- Exhaust Gas Recirculation (EGR)
- Cylinder Head
- MAP/TMAP
- Hydraulic Fluid
- Battery Management Systems

After-Treatment

- Diesel Particulate Filter (DPF)
- Diesel Exhaust Fluid (DEF)
- Gasoline Particulate Filter (GPF)

Fast response time • Combination sensor options

Suitable for ambient temperatures up to 150°C

· Robust and compact design for harsh environments

· Busbar, integrated busbar, flanged and wire mounting

CABIN COMFORT

Simple or redundant analog ratiometric output

Level, Concentration & Conductivity Sensors

· Detects proper fluid fill and contaminant

· Based on open-loop Hall-effect and

Measured values of up to ±4,000A

Temperature Sensors

Pressure Sensors

Position Sensors

measurement

Highest reliability

High accuracy

Customizable options

coreless TMR technology

Temperature Sensors

Moisture resistant

· Fast response time

Pressure Sensors

Customizable design

Dew Point Sensors

measurement

PWM and LIN bus

CE/FCC certified

Position Sensors

Position Sensors

measurement

Highest reliability

Acoustic Sensors

· Highly accurate

Accelerometers

· Electrically isolated

variety of applications

resistant models available

· Absolute, non-contact

· Custom package options

PM2.5 • Laser detection

Dust Particulate Sensors

· Fast response · High accuracy

Anti-theft • Long-range PEPS

· Excellent resolution and precision

Reliable in harsh environments

Touchless mechanical solutions

· Specialized microphones for a wide

· High temperature, water and dust

Wide frequency ranges available

Single and triaxial configurations

· Various mounting methods

· High sensitivity and low noise

· Robust design for demanding environments

Multiple output options

Gas Detection Sensors

· High accuracy · High stability

· High performance · High accuracy

Detectable gases: CO₂, CO, NO₂, NH₃

· Combined temperature and humidity

. PWM and LIN bus, Custom packaging options

Passive Entry and Passive Start Systems // LID

. Short-range immobilizer . Encrypted CAN Bus

· Non-contact inductive and hall-effect technologies

· Robust and compact design for harsh environments

· Noise immune NTC option

Current Sensors

· Absolute, non-contact

· High accuracy · High stability

· High accuracy · High performance

Temperature measurement option

Long-term stability • Custom options

Noise immune NTC option

THERMOMETRICS

EXATHERMOMETRICS

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Temposonics

PIHER STATES

THERMOMETRICS

SGX/

SGX

PIHER SYSTEMS

Temposonics

PIEZOTRONICS

PIEZOTRONICS

EXATHERMOMETRICS

POWERTRAIN





 Fast response time • High accuracy
SATHERMOMETRICS THERMOMETRICS

SAFETY SYSTEMS

Deep domain expertise

Duplicate manufacturing locations

Selectable working principle: potentiometric

Position Sensors

- · Absolute, non-contact measurement

- Programmable for irregular shape tanks

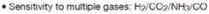
Accelerometers

- · Wide frequency ranges available

- Various mounting methods

Gas Detection Sensors

Detect the presence of combustible gases that indicate batteries Thermal Runaway conditions.



- Temperature / Humidity Sensor
- · Pressure sensor (20 up to 250 kPa)
- Fast response time: <1 second
- IP6K7 rating

- GPS, heading, air temp, barometric pressure and relative humidity
- Mobile and stationary applications

High stability

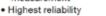
Integral/pigtail options

· High accuracy

- Long-term stability
- Custom options

· Absolute, non-contact

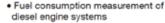
measurement



Robust and compact design for harsh environments

- · Robust non-contacting sensors

Diesel Flow Meter

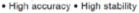


Flow rates up to 4.000 liters per hour

Temperature Sensors

Customized to application Utilizes metallurgical bond glass-coated NTC







■ Temperature Sensors

Pressure Sensors

· Stable and accurate · Durable

Customizable design • Multiple output options

Position Sensors

· Non-contact inductive and hall-effect technologies

Excellent resolution and precision

· Reliable in harsh environments

· Touchless mechanical solutions

Position Sensors

- Absolute, non-contact measurement
- Highest reliability
- · Robust and compact design for 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

MOTION CONTROL & DRIVER ASSISTANT SYSTEMS

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

SmartFlex

· Sensor gateway and data logger



THERMOMETRICS

PIHER SYSTEMS

(i2s

SGX

SGX

EXATHERMOMETRICS

Temposonics

PIHER SYSTEMS



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

HVAC

Temperature Sensors

- · High accuracy · High stability
- Noise-immune NTC option
- Moisture resistant
- Fast response time

- Position Sensors
- · Robust and reliable modular design
- · Custom form-factor available
- Selectable working principle: Potentiometric, hall effect, reed switch

Pressure Sensors

- · Leakproof High accuracy
- · Media compatibility
- Gas Detection Sensors Detectable gases: CO₂, CO, NO₂, NH₃
- · PWM and LIN bus, custom packaging options
- Dust Particulate Sensors PM2.5 • Laser detection
- Custom packaging options
- Combined Pressure & Temperature Sensors Compatible to coolants such as R134a, R1234yf, R744 · High accuracy and fast response time
- LIN output with diagnostic features

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PIHER STATEME

Temposonics

@PCB

PIEZOTRONICS

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Pressure Sensors

- High accuracy Small size
- Long-term stability
- · Diagnostic and protective features (ASIL)

Position Sensors

- PIHER SYSTEMS · Robust and reliable modular design
- hall effect, reed switch
- · Highest reliability · Robust and compact design for harsh environments
- Level & Concentration Sensors High accuracy
- · Continuous monitoring for fluid contamination
- Customizable options

- · Single and triaxial configurations
- · Robust design for demanding environments
- Electrically isolated
- · High sensitivity and low noise

Weatherstations®

- · Hyper-local weather
- True wind speed and direction

Temperature Sensors

- · High accuracy
- Combination sensor options

Pressure Sensors

- Position Sensors

Level Sensors

- High accuracy
- · Continuous monitorina
- · Slosh and aeration filtering software



· Wide pressure range: 10 bar to 200 bar



















































































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 EPA regulations
- . Programmable for irregular shape tank

SSI

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THERMOMETRIES

CONTHERMOMETRICS

Pressure Sensors

- High reliability
- High accuracy
- Up/down stream pressure
- Customizable design
- Compatible with exhaust gas media and acid condensates



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