

PRODUCT SOLUTIONS & APPLICATION FIT

Technology Portfolio
Overview

Motion & Position
Proximity

Motion & Position
GAPS & HAPS

Motion & Position
LVDT

Motion & Position
Resolvers

Motion & Position
Potentiometers

Electrification
Current Sensors

Electrification
Battery Safety

Board Mount
Pressure Sensors

Gas Detection

Speed Sensors

Temperature
Precision Thermostats

Test & Measurement

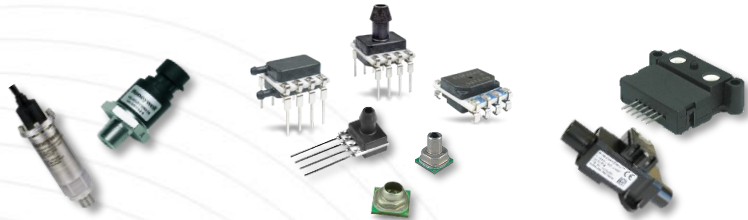
Switches & Controls
Sealed Switches

Switches & Controls
Toggles & Rockers

HSS TECHNOLOGY PORTFOLIO



ELECTRONIC SENSING



Heavy Duty
Pressure

Board Level
Pressure

Air Flow



Gas



Proximity/
Magnetic



Position



IMU/Resolver



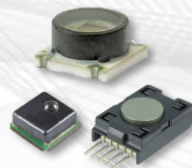
Speed/
Direction



Temperature



Thermal
Switch



Force



Current/Battery
Safety
Management

TEST AND MEASUREMENT



Pressure
Switches



Load



Vibration/
Acceleration



Displays/
Amplifiers



Torque



LVDT

ELECTROMECHANICAL SENSING



Basic
Switches



Sealed
Switches



Controls/
Levers/
Potentiometers



Limit
Switches



Hazardous/
Safety Switches



Elevator
Interlock
Switches



Pressure
Switches



Toggle,
PB/Rocker Switches



MOTION & POSITION PROXIMITY SENSORS



- **Non-contact position detection** for demanding aerospace, defence, and marine environments
- Designed for **temperature, vibration, shock, and EMI** conditions
- Repeatable signals that help support **system awareness and state verification**



APPLICATIONS

- Engine and harsh environments
- Avionics and control systems
- Aircraft landing gear
- Doors
- Marine equipment



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MOTION & POSITION GAPS & HAPS



- **Non-contact position detection** for aerospace system applications
- **Hermetically sealed** design with **integrated health monitoring**
- Repeatable detection for sensor status awareness **and state verification**



APPLICATIONS

- **Airframe and structures:** landing gear, doors, airframe, cargo systems, and evacuation slides
- **Flight control systems:** primary surfaces, stabilizers, actuators, and rotor/rotary systems
- **Engine and nacelle:** engines, nacelles, thrust reversers (TRAS), and valves
- **Hydraulic and mechanical systems:** hydraulics, generator actuators, and turbine speed sensing
- **Other aerospace platforms:** UAVs, ground support equipment, and harsh-environment sensing

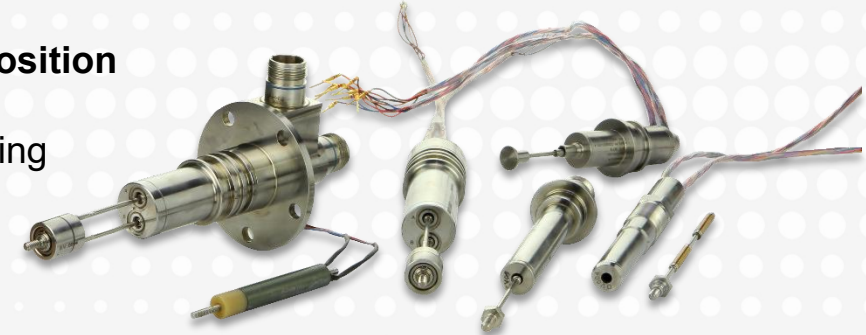


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MOTION & POSITION LVDT

- **Non-contact linear position sensing** for aerospace system applications
- Frictionless design with repeatable **position feedback** for control systems
- **Stable performance** in harsh operating conditions



APPLICATIONS

- **Flight controls (PFC/SFC):** flap and spoiler position sensing
- **Engines and systems:** valves, actuators, and mechanism positioning
- **Landing and steering:** nose-wheel steering position feedback
- **Cockpit controls:** pilot control input measurement
- **General aircraft systems:** position sensing



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MOTION & POSITION RESOLVERS

- Non-contact rotary position sensing with 360° feedback
- Transformer-based design with stable performance in EMI environments
- Supports repeatable position tracking

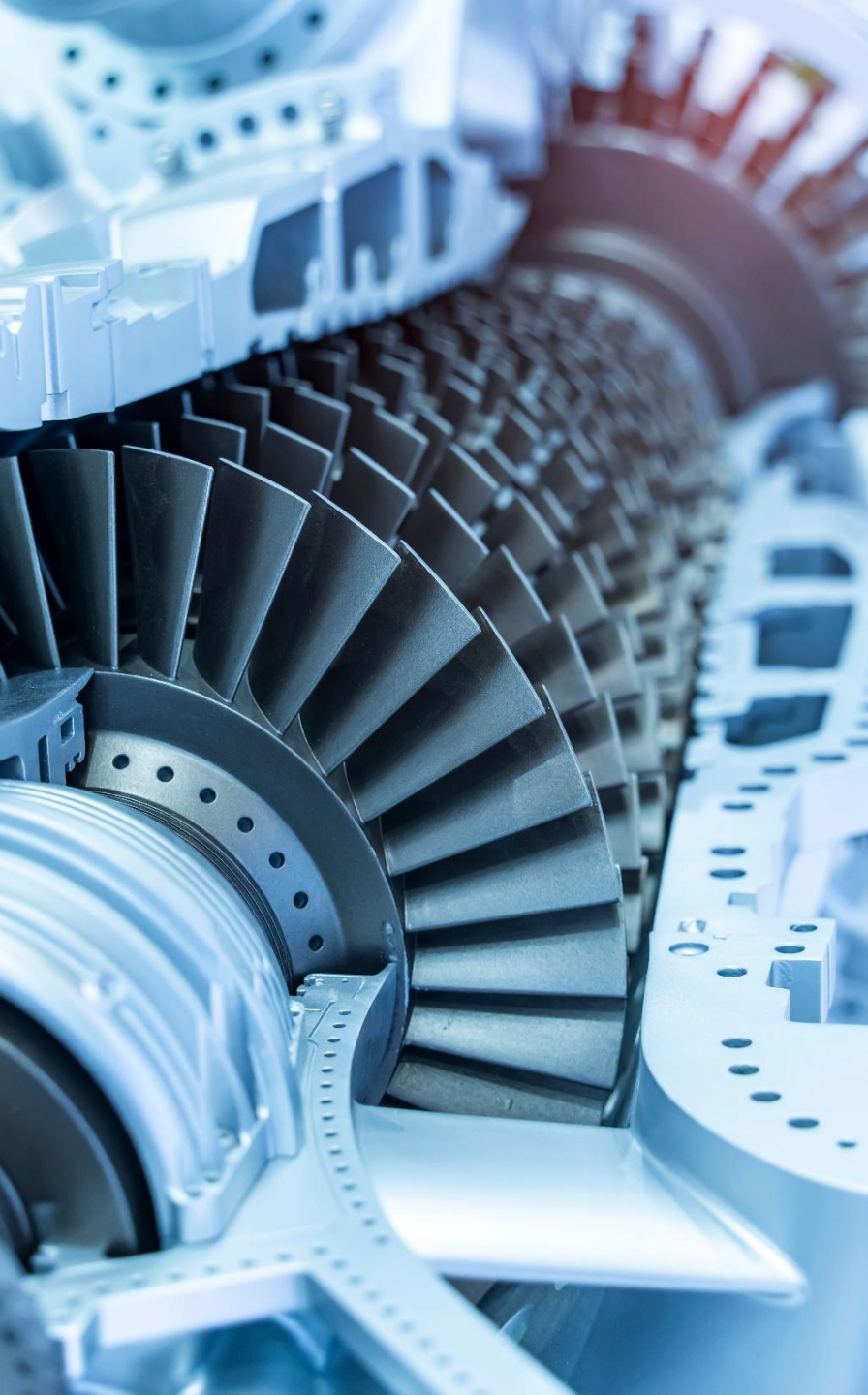
APPLICATIONS

- **Flight control systems:** position feedback for control surfaces and actuators
- **Guidance and navigation:** azimuth and elevation sensing
- **Radar and antenna systems:** rotational position tracking
- **Space and advanced platforms:** solar panel and antenna positioning



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MOTION & POSITION POTENTIOMETERS



- **Analog position feedback** in compact and adaptable designs
- **Continuous electrical signal output** for position measurement
- **Low-latency position feedback** for control in space and weight-constrained environments

APPLICATIONS

- **Engines and gearboxes:** gear, shaft, and turbine speed monitoring
- **Flight systems:** steering position and motion feedback
- **Hydraulic systems:** pumps and motors speed detection
- **Avionics and instrumentation:** tachometers and counters
- **General aircraft systems:** RPM measurement and motion control feedback



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TEMPERATURE PRECISION THERMOSTATS



- Thermal control and over-temperature protection for aerospace system applications
- Deterministic switching at defined temperature setpoints

APPLICATIONS

- **Environmental and thermal systems:** heating, cooling, and ECS regulation
- **Engines and propulsion:** temperature monitoring
- **Flight deck and avionics:** electronics and control system protection
- **Landing gear and cargo systems:** thermal control in harsh zones
- **Spacecraft and defence systems:** thermal management



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SPEED SENSORS

- Rotational and linear speed measurement for aerospace systems
- Speed and direction feedback using **Hall-effect, MR, and VR technologies**
- Supports **control, condition monitoring applications**



APPLICATIONS

- **Engines and gearboxes:** gear, shaft, and turbine speed monitoring
- **Flight systems:** steering position and motion feedback
- **Hydraulic systems:** pumps and motors speed detection
- **Avionics and instrumentation:** tachometers and counters
- **General aircraft systems:** RPM measurement and motion control feedback



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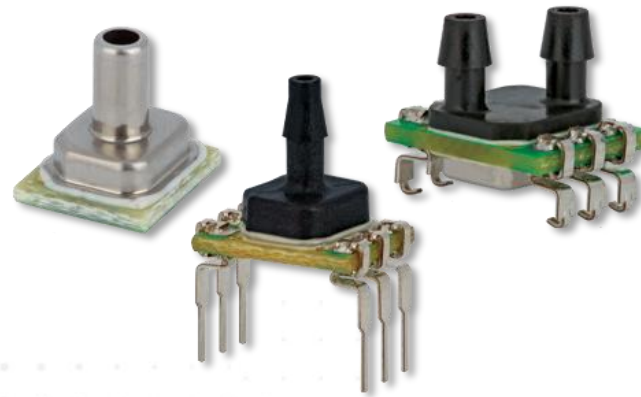


BOARD MOUNT PRESSURE SENSORS

- **Pressure measurement** for embedded and PCB-level integration
- Piezoresistive silicon technology with **integrated ASIC calibration**
- **Temperature-compensated pressure and signal output** across operating conditions
- Small footprint and flexible output options for **space-constrained designs**

APPLICATIONS

- Aircraft cabin pressure
- Air data systems
- Environmental monitoring
- Embedded pressure sensing for onboard electronics and subsystems in avionic instrumentation



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SWITCHES & CONTROLS

SEALED SWITCHES

- **State and position indication** for control functions
- **Hermetic and environmental sealing** for performance in harsh environments
- **Repeatable switching** for system operation and control applications

APPLICATIONS

- **Flight systems:** landing gear, flap/stabilizer controls, and wing-fold actuators
- **Engine systems:** thrust reversers, bleed air, and de-icing systems
- **Aircraft structures:** doors, slides, cargo systems, and valve position sensing
- **Defence platforms:** armored vehicles and ground vehicles
- **Space and harsh environments**





SWITCHES & CONTROLS TOGGLES & ROCKERS



- **Human-machine interface** control for panel-mounted operations
- **Panel-mounted design** with tactile feedback
- Switching for **operator-driven control functions** in harsh environments

APPLICATIONS

- **Flight deck and controls:** cockpit panels, pilot interfaces, and control systems
- **Ground and support equipment:** aviation support systems and maintenance equipment
- **Aircraft systems:** lighting, pumps, lifts, and auxiliary controls
- **Military vehicles and defence:** tracked/wheeled vehicles and mission systems



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ELECTRIFICATION CURRENT SENSORS

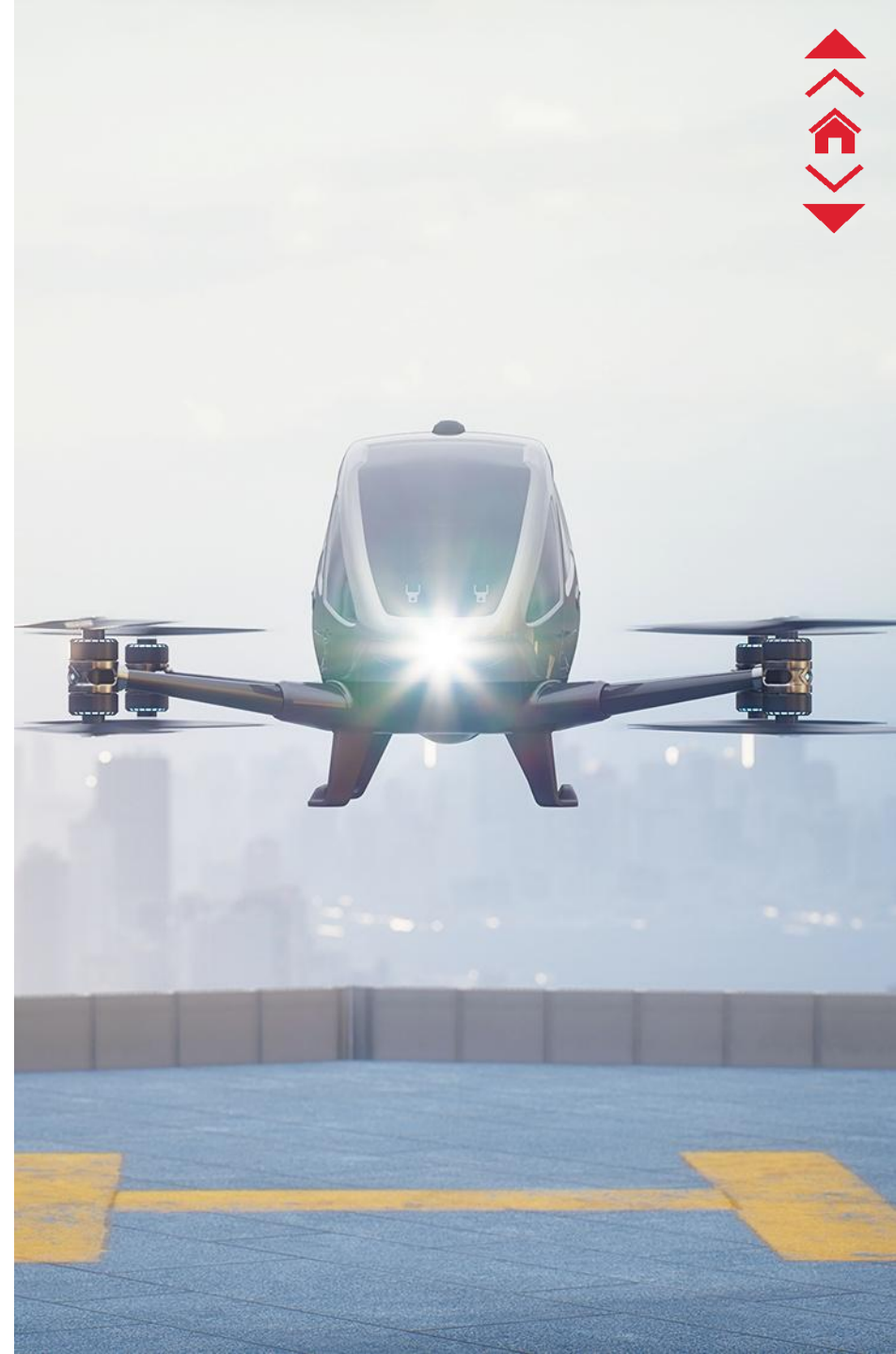
- **Current measurement** for electrified aerospace systems
- **Non-intrusive, electrically isolated** sensing technologies
- Current monitoring **supporting battery management** and power distribution

APPLICATIONS

- **Electrification systems:** battery monitoring and energy management
- **Aircraft and AAM platforms:** electric propulsion and power distribution
- **Flight systems:** current measurement in power electronics and control systems
- **Ground and support equipment:** electrified systems and test equipment
- **Aircraft architectures:** current monitoring



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ELECTRIFICATION BATTERY SAFETY

- **Early detection of lithium-ion battery failure conditions** for electrified aerospace and defence systems
- Monitoring **aerosols, pressure, and electrolyte indicators**
- Help identify **thermal runaway** and monitor battery condition

APPLICATIONS

- **Electric aircraft and AAM:** battery pack monitoring
- **Energy storage systems:** thermal runaway indicator detection
- **Avionics and power systems:** system-level battery protection
- **Ground and support equipment:** electrified infrastructure and charging systems



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GAS DETECTION

- Detection of hazardous and target gases
- Electrochemical, catalytic, infrared (NDIR), and MOX technologies
- **Gas monitoring** for hazard detection, emissions monitoring, and environmental conditions

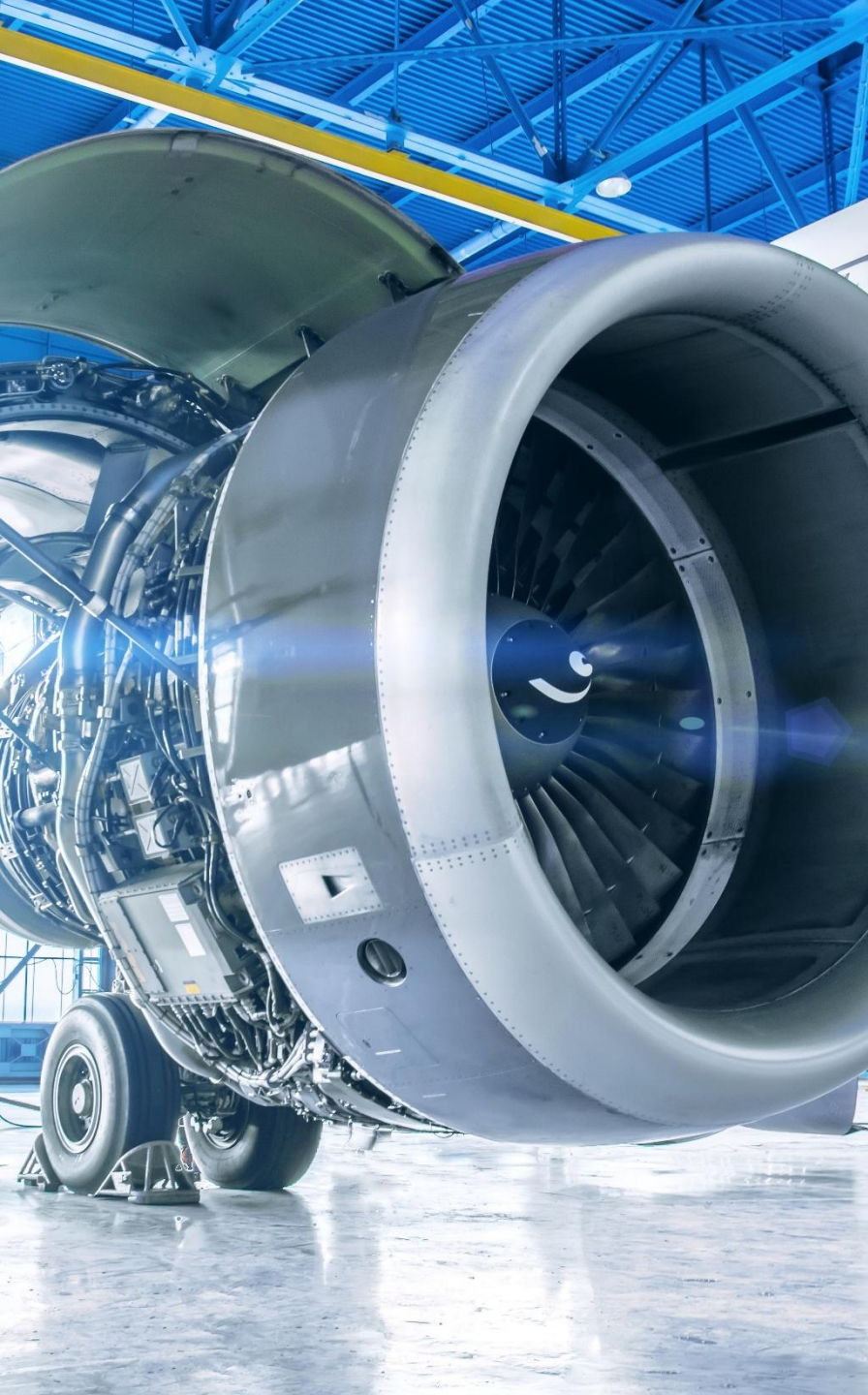
APPLICATIONS

- **Cabin air** monitoring and oxygen sensing
- **Enclosed vehicle environments**
- **Fuel and propulsion leak detection** and emissions monitoring
- **Ground support equipment maintenance** environments and confined space
- **Personal, portable systems** for operators and maintenance personnel



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TEST AND MEASUREMENT

- Test and measurement solutions for **force, pressure, torque, acceleration, and displacement**
- Designed for **validation, monitoring, and system testing**
- **Standard and customisable solutions** for aerospace and defence test environments



APPLICATIONS

- **Aerospace** structural testing, fatigue analysis, and flight validation
- Propulsion and engines thrust, torque, and pressure measurements during development and operation
- **Vehicle performance** validation, and system qualification
- **Load and displacement measurement** for control system verification in flight and actuation systems
- **Ground test and maintenance** for diagnostic equipment, calibration systems, and test benches



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