AEROSPACE PRODUCTS OVERVIEW
ABOUT SENSATA TECHNOLOGIES

Sensata Technologies is a global industrial technology company striving to create a cleaner, more efficient, electrified and connected world. Through our broad portfolio of sensors, electrical protection components and sensor-rich solutions which create valuable business insights, we help our customers address increasingly complex engineering and operating performance requirements.

For more than 100 years, Sensata has provided a wide range of customized, sensor-rich solutions, including controllers and software, that help customers solve difficult challenges in the automotive, aircraft, industrial, heavy vehicle, off-road, HVAC and marine industries. With more than 21,000 employees and operations in 13 countries, Sensata’s solutions improve safety, efficiency, and comfort for millions of people every day.

OUR AEROSPACE PRODUCT SOLUTIONS

Get the best solution to your mission-critical sensing challenges in aerospace applications with Sensata’s energy storage systems, pilot controls, high voltage management, electrical protection, pressure, position, and temperature product portfolio.

The synergy of leading brands and years of proven expertise in extremely demanding markets allow us to provide you with the highest level of quality, service, technical expertise and worldwide support to improve safety, efficiency and comfort in your flight control, landing gear, power distribution, engine monitoring, environmental control applications, and your most daunting electrification challenges you are facing.

PRODUCT LINES

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<th>ADVANCED AIR MOBILITY &amp; ELECTRIFICATION</th>
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Sensata is uniquely positioned to offer a range of solutions for battery electric and hydrogen fuel cell aircraft powering the advanced air mobility revolution.

**OUR BRANDS**

Dynapower*
Gigavac
Lithium balance
Sendyne
Spear

**APPLICATIONS**

- Energy storage systems
- Pilot controls
- High voltage management
- Charging Infrastructure
- Battery management system
- Pressure

*acquisition pending approval
Fully hermetic, welded design for Strain Gauge sense element (50 bar to 400 bar)

- Core components in stock and single, multi channel options

**ADVANTAGES**

- **Quick to market**
  - Commonality will allow for short development time for each new iteration

- **Superior Value Pricing**
  - Lower total cost of ownership

- **Short Lead Times**
  - Core components in stock and continuous line of manufacturing allow for quick delivery

- **Quality**
  - Leverages learnings from high volume automotive production lines and zero defect methodologies
  - Dedicated technicians and QA staff

**HYDROGEN PRESSURE SENSORS**

Sensata continues to expand our position as a world leader in pressure sensors by launching solutions for Hydrogen Fuel Cell drivetrains.

Prototype ST Aerospace H2 Fuel Cell Pressure Sensors
Define market requirements and refine designs around aerospace material sets (~6-12 months)

ST Aerospace H2 Fuel Cell Pressure Sensors
DO 160 / DO 178 qualified units (~18-24 months)

ST Industrial / Automotive H2 Fuel Cell Pressure Sensors
Microfused Strain Gauge sense element (50 bar to 400 bar)
MEMs sense element (> 50 bar)

**AGILE MODULAR PRESSURE SENSOR**

**FEATURES**

- Fully hermetic, welded design for environmental protection, high reliability
- Qualification to RTCA DO 160, MIL STD 810
- EMC, EMI, Lightning protected
- Single, multi channel options

**APPLICATIONS**

- Hydraulic Flight Control
- Engine Control
- Cabin Air and Climate Control
- Bleed Air
- Tire Pressure Monitoring
- Landing and Brake Systems
- Waste water and Galley Systems
- Space and Satellite
- And more...

For more information on these and other products visit sensata.com
The Kavlico brand is the Global leader in the Aerospace LVDT market through excellence in technology innovation, service, and product reliability. Kavlico brand RVDTs specialize in harsh environment rotary position sensing and have been qualified for many high vibration pressurized applications.

**OUR BRANDS**

BEI Kimco

BEI Sensors

Kavlico

**APPLICATIONS**

- Flight Control Actuators
- Engine Valve Controls
- Landing Gear Feedback
- Cockpit Controls
- Environmental Controls

For more information on these and other products visit sensata.com

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**POSITION SENSORS**

Over 1 million LVDTs are installed in aircraft worldwide. Sensata LVDTs have market leading MTBF. The design is inherently more reliable because of the design principle: non-contacting mutual induction which provides friction-free motion and nearly infinite resolution.

Sensata designs and manufactures single and multi-channel devices as well as DC/DC and industrial LVDTs.

**force transducers**

LVDT-based force transducers provide force feedback through a precise measurement of spring deflection. The Sensata design provides the highest accuracy and greatest stability with temperature over time of any force sensor in aerospace application, and the rugged design makes them ideal for the most extreme environments.

NEW development of strain gauge force sensors also being tested for new applications to provide haptic feedback and other force sensing application using innovative MEMs technology from Sensata.

<table>
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<th>Typical Product Specifications</th>
<th>LVDTs</th>
<th>RVDTs</th>
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<tr>
<td>Operating Load</td>
<td>+/- 10 to 750 lbf</td>
<td>+/- 200 to 3000 lbf</td>
</tr>
<tr>
<td>Limit Load</td>
<td>+/- 200 to 3000 lbf</td>
<td>+/- 300 to 4500 lbf</td>
</tr>
<tr>
<td>Ultimate Load</td>
<td>+/- 300 to 4500 lbf</td>
<td>+/- 300 to 4500 lbf</td>
</tr>
<tr>
<td>Spring Rate</td>
<td>2000 to 20k lb/in</td>
<td>2000 to 20k lb/in</td>
</tr>
<tr>
<td>Excitation</td>
<td>8V/2VRMS, 1.5 to 3kHz or 26V/2VRMS, 400Hz</td>
<td>8V/2VRMS, 1.5 to 3kHz or 26V/2VRMS, 400Hz</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>.0000500 to .004500 V/V/lbf</td>
<td>.0001000 to .004500 V/V/lbf</td>
</tr>
<tr>
<td>Accuracy</td>
<td>+/-0.5 to 1.5% F.S.</td>
<td>+/-0.5 to 1.5% F.S.</td>
</tr>
</tbody>
</table>

**OVERVIEW**

- Over 1 million LVDTs are installed in aircraft worldwide.
- LVDT-based force transducers provide force feedback through a precise measurement of spring deflection.
- Sensata LVDTs have market leading MTBF.
- RVDTs are also available in single and multi-channel as well as DC/DC configurations.

**Typical Product Specifications**

- Range: 0.010 to 20.0” +/- 80 degrees
- Linearity: +/- 0.25% F.S.
- Accuracy: +/- 0.25% F.S.
- MTBF: 700,000 hours
- Temperature Range: -65 to 450F
- Redundancy: 1 to 4 channels
- Environmental: MIL-STD-810 or DD-160
- Gear Ratios: Up to 4000:1

*NEW high temperature LVDT development for 600 to 1000 degrees F*

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**cockpit controls**

These custom designed devices can incorporate our RVDT sensors, motors, and switches within one packaged control. Kavlico cockpit controls meet customer and market demand for small envelope, minimum weight, and high reliability. Our experience includes:

- Speed Brake / Variable Air Brake Handle
- Landing Gear Control Lever (LGCL)
- Steering Control Wheel (Tiller)
- Flap Level Selector (FLS)
- Flight Spoiler Control Lever (FSCL)
- NEW Throttle Quadrant Assembly (TQA)

**APPLICATIONS**

- Flight Control Actuators
- Engine Valve Controls
- Landing Gear Feedback
- Cockpit Controls
- Environmental Controls

**motors & voice coil actuators**

With the adoption of electro-mechanical actuation in aerospace and defense, motors have become increasingly important in actuation and motion control systems including applications such as targeting, scanning controls, and fin actuation. Motors and magnetic products:

- Brushless DC
- Special Motors (designed to embed in application)
- Linear & Rotary Voice Coil Actuators

**QPL Standard Products:**

- MIL-PRF-12934
- MIL-PRF-29023

**aftermarket capability**

Fully Certified FAA 145 Repair Station in Thousand Oaks, CA and committed to full customer support including troubleshooting, repair, spares, and AOG service.
OUR BRANDS
Klixon

APPLICATIONS
- Landing Systems
- Environmental Control Systems
- Engine Systems (Pressure and Temperature)
- Actuator and Valve Controls
- Cockpit Controls
- Space and Satellite Systems

For more information on these and other products visit sensata.com

SWITCHES

6PS SERIES

6PS Series precision pressure switches are snap-acting, all-welded devices with hermetically sealed switch contacts. They were developed for applications in aerospace and electronics where high reliability and/or resistance to severe environments is required.

- Actuation range of 45 to 600 PSIA
- High vibration resistance
- Corrosion resistant: 300 series stainless steel construction for all environment and media exposed parts
- 8000 psi minimum burst pressure
- Available in wide range of standard and custom configurations
- Typical applications include APU and Aircraft Engine Oil Systems

AT Switch Packages

AT Basic Switch

KX Switch Package

THERMOSTATS

11041 (M24236/1) Thermostat

Tiny Stats

Thermostat Probes

M2 Narrow Differential Thermostat

Utilizing a bimetal, snap acting disc as the thermal sensing element, KLIXON precision thermostats feature exceptionally high reliability and long life. Standard configurations, probe style packages, or custom packaging can meet most design requirements. Thermostats shown to the right are qualified to MIL-PRF-24236, NASA S-311-P641 and UL/CSA certified.

YOUR TRUSTED PARTNER

Your trusted partner for design, development, and manufacturing of sensors and controls.
CIRCUIT BREAKERS

50+ years of serving mission critical power distribution and switching applications in Aerospace and Defense coupled with sensing innovation and operational excellence.

OUR BRANDS

Klixon

SEGMNENTS

• Commercial
• Defense
• Business Jet
• Rotorcraft
• Ground Defense Vehicles

APPLICATIONS

• Primary & Secondary Power Distribution
• Electrical Panels
• Galley Equipment
• Cockpit Circuit Breaker Panels

For more information on these and other products visit sensata.com

CIRCUIT BREAKERS

• Low voltage drop
• High vibration resistance
• 100% Calibrated and tested
• Miniature size for minimal weight
• High short circuit interrupting capacity
• Thermal response analogous to heat up rate of wire
• Coordinated ratings for improved system reliability

advantages & options

• Auxiliary switch circuits
• Alternate length pushbuttons
• English or metric thread sizes
• Dual safety, “Fusible link”, for redundant protection in hard fault conditions
• Temperature compensation to offset effects of ambient temperature allowing use of smaller gauge wire

performance features

• Family
• Approval
• Rating (amps)
• Approx. Maj. Dim. (in) L x W x H
• Approx. WT (g)

TC SERIES

1 - 35 amps

TC SERIES

1 - 35 amps

6752 Series

2/ (std.) - 100 amps

TC SERIES

1 - 35 amps

6752 Series

2/ (std.) - 100 amps

6752 Series

2/ (aux.) - 100 amps

SOLUTIONS ENGINEERED TO PERFORM

Sensata prides itself on designing and manufacturing solutions for the most demanding, mission critical applications.
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