AEROSPACE
PRODUCTS OVERVIEW
ABOUT SENSATA TECHNOLOGIES

Sensata Technologies is one of the world’s leading suppliers of sensing, electrical protection, control and power management solutions with operations and business centers in twelve countries. Sensata’s products improve safety, efficiency and comfort for millions of people every day in automotive, appliance, aircraft, industrial, military, heavy vehicle, heating, air-conditioning and ventilation, data, telecommunications, recreational vehicle and marine applications.

For more information please visit Sensata’s website at www.sensata.com

OUR AEROSPACE PRODUCT SOLUTIONS

Get the best solution to improve your application’s efficiency with Sensata’s electrical protection, pressure, position and temperature product portfolio.

The synergy of leading brands and years of proven expertise in extremely demanding automotive and industrial 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 and environmental control applications.

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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

**APPLICATIONS**
- Primary & Secondary Power Distribution
- Electrical Panels
- Galley Equipment
- Cockpit Circuit Breaker Panels

**SEGMENTS**
- Commercial
- Defense
- Business Jet
- Rotorcraft
- Ground Defense Vehicles

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**CIRCUIT BREAKERS**

**performance features**
- 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

**featured products**
- TC SERIES 1 - 35 amps
- 6752 Series 2½ - 100 amps

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### featured products

<table>
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<tr>
<th>Family</th>
<th>Approval</th>
<th>Rating (amps)</th>
<th>Approx. Maj. Dim. (in) L x W x H</th>
<th>Approx. WT (g)</th>
</tr>
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<tr>
<td>2TC</td>
<td>MS3320, EN2995-004 &amp; -005</td>
<td>1 – 30</td>
<td>75 x .56 x 1.2</td>
<td>25.0</td>
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<tr>
<td>2TC49</td>
<td>MS5809/1</td>
<td>2.5 – 15</td>
<td>1.21 x .75 x .56</td>
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<tr>
<td>3TC</td>
<td>MS14105, MS14105L &amp; MS25244</td>
<td>5 – 35</td>
<td>1.10 x .75 x 1.2</td>
<td>36.0</td>
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<tr>
<td>5TC</td>
<td>EN3661-005 &amp; -006</td>
<td>20 – 70</td>
<td>1.65 x .77 x 1.92</td>
<td>52 (std.) 75 (aux.)</td>
</tr>
<tr>
<td>6TC</td>
<td>MS14154, MS14154L, MS14154V, EN2996-004 &amp; -005</td>
<td>2 – 25</td>
<td>1, 15 – 35</td>
<td>1.10 x 2.35 x 1.2</td>
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<tr>
<td>9TC</td>
<td>MS14153</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15TC</td>
<td>EN3662-005 &amp; -006</td>
<td>20 – 50</td>
<td>1.3 x 2.15 x 2.1</td>
<td>130 (std.) 140 (aux.)</td>
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<td>6752-12</td>
<td>MS24571</td>
<td>2.5 – 50</td>
<td>2.2 x .75 x 3.3</td>
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<tr>
<td>6752-100</td>
<td>MS25361 &amp; MS25361V</td>
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<td>6752-305</td>
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<td>2.5 – 90</td>
<td>2.2 x 2.25 x 3.3</td>
<td>292.0</td>
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</tbody>
</table>

All manual trip / indicating devices; only shows high volume options -- many others available

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**SOLUTIONS ENGINEERED TO PERFORM**
Sensata prides itself on designing and manufacturing solutions for the most demanding, mission critical applications.
**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

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**TEMPERATURE SENSORS**

**thin film platinum temperature sensors**

PT200 SERIES

Thin Film Platinum Temperature Sensors (PT200) are a proven technology for temperature measurements with many applications in airframe and engine sensing. Building on Sensata’s leading position in automotive and industrial temperature sensing to offer:

- Optimal cost versus robustness
- Fast response time by reduced tip diameter and thermal decoupling
- High absolute accuracy up to 850°C by thermal decoupling of measurement element and housing
- High linearity
- Flexibility in insertion depth: 25mm, 35mm, 40mm, 50mm, 70mm
- Fail safe design
- Digital output

**wire-wound RTD sensors**

90 OHM

Responsive and reliable for use in oil and air temperature measurement, these 90 ohm wire wound sensor will be offered to MS28034.

**thermocouple temperature sensors**

TYPE-K & TYPE-N

Leveraging Sensata’s experience in thermocouples for automotive exhaust gas temperature sensing, Klixon aerospace thermocouple temperature sensors are available in a variety of configurations for use in temperatures up to 1000°C.

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**SWITCHES**

**hermetic position**

AT Switch Packages

AT Basic Switch

KX Switch Package

- Available per MIL-PRF-8855, Enclosure Symbol 5
- Hermetically sealed with dry nitrogen gas backfill
- Small, lightweight axis–symmetric design
- Proven snap-action switching, reliable performance and long life
- Excellent shock and vibration resistance
- Switching up to 4 amps at 30VDC
- Optimal for low level circuits
- Temperature range between -275°F and +450°F
- Single and multiple pole designs available
- Various mounting configurations for custom applications
- Wide range of side plate designs for narrow width applications
- PMA Approvals for various commercial aircraft
- Customer approvals for space and military applications

**thermic pressure**

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

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**THERMOSTATS**

**hermetic 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.

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**YOUR TRUSTED PARTNER**

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

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**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.

**Typical Product Specifications**

- **Operating Loads**: +/- 10 to 750 lbf
- **Limit Load**: +/- 200 to 3000 lbf
- **Ultimate Load**: +/- 300 to 4500 lbf
- **Spring Rate**: 2000 to 20k lbf/in.
- **Excitation**: 8+/2V RMS, 1.5 to 3kHz or 28+/-2V RMS, 400Hz
- **Sensitivity**: .000100 to .004500 V/V/lbf
- **Accuracy**: +/-0.5 to 1.5% F.S.

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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)

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**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

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**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
Sensata sells more pressure sensors than any other company worldwide. Decades of experience mean that Sensata can develop and manufacture application-specific products in-house, reducing costs to the customer and ensuring strict adherence to quality and qualification standards. Sensata is pushing the limits for next generation aerospace pressure sensors which will incorporate wireless connectivity, complex electronics and edge computing, as well as higher temperature capability for harsh environment sensing applications.

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

DIGITAL OUTPUT, SIGNAL CONDITIONING AND ON-BOARD DIAGNOSTICS

Sensata is the global leader for digital output pressure sensing, and is leading innovation in signal conditioning and on-board diagnostics including in-house capability to design and develop application specific integrated circuits (ASICs). We are ready to be your trusted partner for smart sensors in aerospace applications.
Sales & Business Offices

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Commitment to Quality

ISO 9001, AS9100 C, and Boeing D1-9000 certification. Every employee at Sensata is accountable for and committed to the quality of our products and continuous improvement of our processes.

Platform Experience

COMMERCIAL TRANSPORT:
All Airbus, Boeing, COMAC, and Bombardier

REGIONAL, BUSINESS JET, AND GENERAL AVIATION:
Bombardier, Gulfstream, Embraer, Dassault, COMAC, Cessna, Irkut, HondaJet, Mitsubishi, and more...

HELICOPTERS:
Sikorsky, Boeing, Bell, Airbus, Augusta, Robinson, and more...

DEFENSE:
Extensive experience in Fighters, Bombers, UAV, and Missiles as well as many applications for Space vehicles and engines