

Extraordinary Performing Pressure Sensors Technologies

**Lowest drift
Highest Accuracy
Unrivalled!**

Power of Pedigree

Pressure Sensor Performance

Technologies are yet another key product group within Auxitrol Weston expanding portfolio which already boasts world leading Speed and Temperature Sensor solutions, with over one hundred years of accumulated design and manufacturing experience.

During this time, we have amassed over fifty years of Pressure Sensor specific expertise, including the development of our **unique Vibrating Cylinder technology** which, with no reported history of drift issues, is arguably the world's most accurate and stable pressure sensor.

Add to this our **leading edge Silicon On Insulator (SOI) technology**, now a key component within many Aerospace, Marine, Automotive and Semiconductor production and development programs and you have access to a wealth of well tested experience, which is proving **invaluable** to those who crave engineering excellence.

Trust the Experts

When you do business with Auxitrol Weston, you are not merely accessing guaranteed quality and performance, you are tapping into an unrivalled resource of more than one hundred **Sensor Experts who are passionate about technological and engineering advancement**. And, more importantly, about working with you to find inspirational solutions to your engineering challenges!

Reliability

Reliability is an often over-used and an unsubstantiated word to drive up product preconceptions. However, at Auxitrol Weston, it's our endorsement. Our final word, in a process of **Margin & Life Testing** which subjects all our sensors to unprecedented extremes, in order that we can understand what it takes to break our products, so that you can't!

And, Auxitrol Weston are increasingly being asked to respond to OEM Service Bulletins, to find alternative solutions to failed competitor components, further underpinning our expertise in the field of Pressure.

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SOI - enormous stability in the face of hostility

Not content with owning the **world's most accurate Vibrating Cylinder Pressure Sensor**, Auxitrol Weston have developed the **most versatile range of SOI** (Silicon On Insulator) sensor products, specifically with small spaces, extreme environments and cost in mind.

Our sensors are manufactured within our own Clean Room facility, a unit fully dedicated to **silicon microsystems** design and production, incorporating our patented SOI chip designs in standard sizes of 3mm x 3mm or 4mm x 4mm (150mbar to 600bar). These ingenious single crystal silicon Piezoresistor sensing elements are protected from the environment using our unique packaging designs, to form sensors of **enormous stability and accuracy**.

SOI sensors have a **substantial pedigree** within Aerospace, with ever expanding applications within the global Power Generation, Marine, Semiconductor and Precision Equipment markets, where they are currently used for equally wide ranging purposes, including the measurement of mass flow, air temperature, air pressure and fluid pressure.

Defining characteristics of our SOI Sensor technology include

- SOI improves piezoresistive sensor stability
- Operating Temperature range from -55°C to 200°C
- Pressure range from 0.15 bar to 600 bar
- Patented designs for low pressure measurement, overpressure protection and high stability
- Accuracy from +/- 0.2%FS to +/-1%FS (depending on compensation means) over the measurement range
- True differential pressure measurement
- Customisable interfaces with a wide range of outputs available
- Compact packaging
- Possibility to combine measurements e.g. (redundancy, different pressures, temperature)

SOI technology is enabling us to make our Pressure Sensors smaller, less expensive and more robust, without sacrificing stability or performance and this mission continues. Shortly, we will be introducing a new micro-range, based on a 2mm x 2mm chip format, with all the stability we are already famous for. Plus, an increase in temperature capability. Watch this space!

Highest stability Pressure Sensor

Our family of Vibrating Cylinder sensors are widely recognised as the **most stable in the market**, a performance characteristic which is inherent in our technology, which has existed from its inception and continues today, **achieving <0.005%FS typical accuracy over a temperature range -55°C to +125°C, and <0.002%FS typical stability/year.**

Our unique **Vibrating Cylinder Technology** has proven to be extremely dexterous, having made an initial impact with the Aerospace Industry, it has been subsequently adopted across the widest range of industrial and commercial applications, where **accuracy is paramount**. To reinforce this point, here's a brief look at some of the areas of business where our VC technology is making a quantifiable difference.

Industry	Application
Aerospace	Air Data (altitude and airspeed) exceeding RVSM requirements; Electronic Engine Controls
Energy	Turbine Controls
Marine	Electronic Engine controls
Semiconductor	Wafer positioning: interferometer pressure correction
Meteorology/Barometry	Atmospheric pressure measurement
Calibration & Test	Used as the benchmark for pressure calibration (Air Data Test Sets)
Retail / Environmental	Tank leakage measurement

The Last Word in Absolute Reliability

We want our Customers to have access to only the most advanced Sensors in the world. We've resourced accordingly.

The finest Engineering intellect. Extraordinary resources. Encouraged passion. When you have all of these, there isn't a test or a sensor challenge the world can throw at us that we can't deliver upon.

The relationships between our Research and Development Unit, our many Test Laboratories, our Design and Simulation teams, go beyond connected. These are **truly integrated resources** which enable our Engineers to test as much as they feel is appropriate. To question their test findings. To simulate product characteristics and go on questioning, testing, analysing, refining and improving until they are completely satisfied.

And, because great ideas and product improvements are borne "of the moment", we've made sure we can **respond immediately** to bring them to life, so that you can rely upon them - absolutely!

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