

PRESS RELEASE

Superior Sensor Technology Improves Speed and Altitude Accuracy in UAVs

Advanced Pressure Sensors are Critical Air Measurement Components for Ensuring Precise Flight Path

Los Gatos, CA, April 25, 2022 - [Superior Sensor Technology](#) today announced their ND Series pressure sensors offer advanced air measurement capability that greatly improve the speed and altitude control of drones or unmanned aerial vehicles (UAVs). Based on the company's advanced [NimbleSense™](#) architecture, the [ND series pressure sensors](#) are not sensitive to noise, provide extreme accuracy, offer fast response times, use minimal power, and are designed in a very small form factor, making them ideal for ensuring precise flight path control in drone applications.

Onboard pressure sensors are used to control the trajectory and performance of [UAVs](#). Superior Sensor Technology is offering two advanced pressure sensors for barometer applications that measure changes in atmospheric pressure to maintain stable altitude and Pitot tube applications for measuring air speed (still and moving air) in winged UAVs.

The ND015A absolute pressure sensor for barometric applications and the ND005D differential pressure sensor for Pitot tube applications have industry leading 17-bit effective resolution, resulting in measurement accuracy of within 0.10% and 0.05%. The NimbleSense architecture ensures this accuracy is linear, enabling the pressure sensors to maintain consistent measurement readings regardless of the UAVs altitude or speed. Unlike other pressure sensors, the ND015A and ND005D have an integrated multi-order digital filter that blocks out noise caused by wind and mechanical components of the UAV, further eliminating measurement errors. System update rates from the sensors can be set as fast as 2.25ms, ensuring faster response time during changing flight conditions. The devices size, weight and power consumption are very small; 19mm x12.7mm (size), weight 3.5gm (weight) and 5mA (power consumption).

“The demand for UAVs is surging, with forecasted growth of over 18% annually between 2022 and 2030 driven by a mix of commercial, industrial and military applications. This growth will demand ever more intelligent and efficient pressure sensors for flight accuracy,” said Anthony Gioeli, Vice President of Marketing, Superior Sensor Technology.

Superior Sensor’s pressure sensors are based on the NimbleSense system-in-a-sensor architecture, which offers an unprecedented level of integration and performance. For example, the NimbleSense Multi-Range™ feature enables UAV manufacturers to use the same sensor across all of their product lines operating at different speeds and conditions. This unique capability reduces inventory stocking costs and manufacturing time.

The ND0015A and ND005D are available in production volumes with immediate delivery from Digi-Key Electronics and Mouser Electronics.

[Superior Sensor Technology](#) is revolutionizing the high performance, cost driven pressure sensor market by developing integrative, highly intelligent solutions for industrial, HVAC and medical applications. The company’s technology is based on a breakthrough system-in-a-sensor, proprietary architecture, called [NimbleSense™](#), which significantly improves overall sensor performance while adding exclusive application specific system features. Superior Sensor Technology was founded in 2016 and is based in Los Gatos, CA.

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