PRESS RELEASE

Superior Sensor Technology Offers Pressure Sensor Evaluation Kit for Medical Ventilators

VN Series Evaluation Kit Includes Every Sensor Needed for All Pressure Sockets of a Ventilator

Los Gatos, CA, July 11, 2023 - Superior Sensor Technology today announced the availability of a new Evaluation Kit for its VN Series Pressure Sensors for high-performance ventilators and high-flow oxygen devices. Designed to support a broad range of applications, the VN Series Evaluation Kit includes every sensor needed for all pressure sensor sockets in a ventilator including the VN Series exclusive extreme resolution sensors used for low and high pressure flow measurements. In addition to measuring low and high pressure flow, the comprehensive evaluation kit also includes sensors for inlet, inspiratory, expiratory and barometric pressures.

Superior Sensor introduced the VN Series earlier this year to enable its customers to quickly design and manufacture higher performance respiratory devices utilizing one family of pressure sensors optimized to work seamlessly together. Differing from other pressure sensors on the market, Superior Sensor's devices offer 24-bit output resolution at an update rate faster than 1 ms, improving patient breathing synchrony with unparalleled levels of accuracy and responsiveness. This capability enables manufacturers to design one ventilator to support all patients from neonates to adults.

"With our VN Series evaluation kit, our customers can use one kit to evaluate all the types of pressure sensors needed in medical ventilators and high flow oxygen devices," said Anthony Gioeli, Vice President of Marketing, Superior Sensor Technology.

The VN Series EV Kit includes all of the VN Series pressure sensors (VN025CM, VN026CM, VN130CM, VN131CM, VN150D, VN150A and VN-BARO) along with the evaluation board

and a USB drive with software and documentation. The following table highlights the applications of the various sensors in the VN Series:

Application	VN025CM	VN026CM	VN130CM	VN131CM	VN150D	VN150A	VN-BARO
Pressure Ranges	±5 to ±25 cmH$_2$O	±2.5 to ±25 cmH$_2$O	±80 to ±130 cmH$_2$O	±60 to ±130 cmH$_2$O	±80 to ±150 psi	80 to 150 psia	350 to 1100 mbar
Inlet Pressure					✓	✓	
Inspiratory Pressure			✓✓	✓			
Expiratory Pressure			✓✓	✓			
Expiratory Flow	✓	✓✓					
Flow (Blower based)	✓	✓✓					
Flow (Wall & Tank based)			✓	✓✓			
Volumetric to Mass Flow							✓

Devices with two checks are better suited for that application versus those with one check.

All of the sensors use the company's proprietary Multi-Range technology that enable the sensors to support an extremely wide-dynamic range, eliminating the need for fine tuning or additional calibration. Additionally, the VN026CM and VN131CM offer extreme resolution that expands the effective sensor resolution, increasing the dynamic range of the sensors and further reducing the noise floor by an additional 20db, representing the lowest noise floor in the industry.

The sensors offer optional integrated capabilities such as advanced digital filtering and a 3-mode pressure switch. These features turn the pressure sensors into sensing sub-systems that streamline manufacturing and increase reliability. Each sensor in the VN Series has an identical footprint and is pin compatible with the rest of the series, simplifying PCB layouts and enabling manufacturers to easily swap VN Series sensors for different applications.

The VN Series Evaluation Kit and Pressure Sensors are currently available from Digi-Key and Mouser.

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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