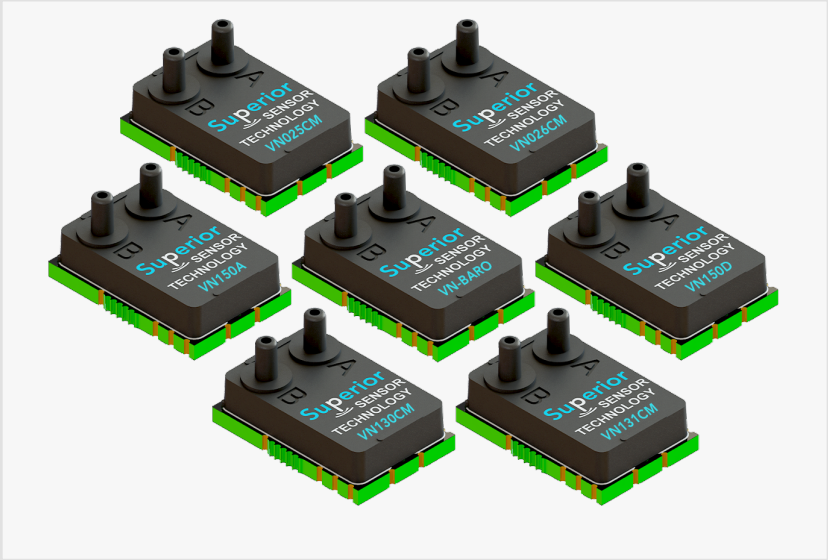
Superior Sensor Technology's New Ventilator Sensors with Extreme Resolution Expand Dynamic Range to Support All Patients

Family of Seven Sensors are Designed for Multiple System Applications from Measuring Flow to Inlet, Inspiratory, Expiratory and Barometric Pressures



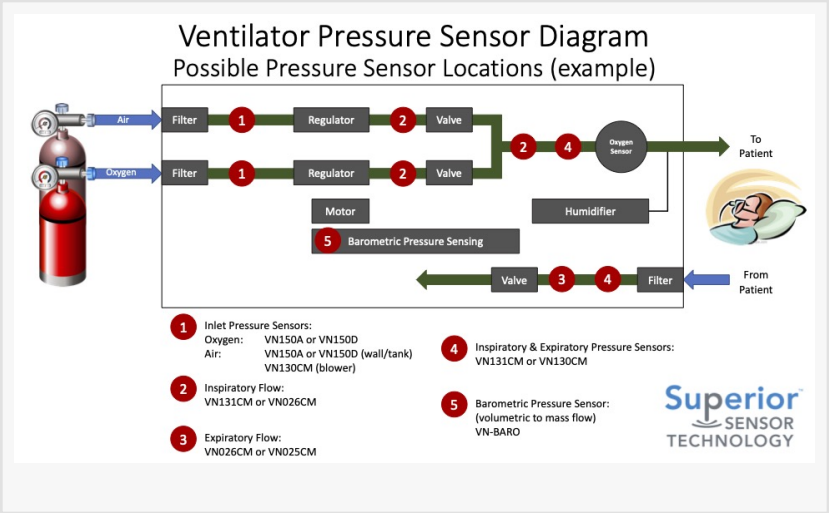
LOS GATOS, CA, USA, March 28, 2023 /EINPresswire.com/ -- Superior Sensor Technology today announced the VN Series pressure sensor family with proprietary oversampling technology and expanded dynamic range, enabling companies to quickly design and manufacture high-performance ventilators and high-flow oxygen devices to support a broader range of patient breathing demands.

VN Series pressure sensors incorporate an advance oversampling technique to effectively eliminate all noise outside the band of interest. Superior Sensor's proprietary oversampling technology also allows mechanical ventilators to directly use sensor outputs at full speed. This eliminates the oversampling of sensor outputs, which can slow down system response time by up to 10 times.

> "With our extreme resolution sensors, manufacturers can more easily design one ventilator to support all patients from neonates to adults,"
>
> *Anthony Gioeli, Vice President of Marketing, Superior Sensor Technology*

The product family consists of seven new devices supporting a wide range of system applications from measuring flow to inlet, inspiratory, expiratory and barometric pressures. State-of-the-art digital processing significantly reduces the impact of system level noise. Additionally, with 24-bit output resolution, advanced filtering, exceptional zero stability and support for greater than 1 kHz update rate, the sensors have been designed to maximize system accuracy and reduce error rates, greatly benefitting patients in life critical, respiratory

situations.



The following highlights the products and applications of the various sensors in the VN Series:

- VN025CM supports pressure ranges from ±5 to ±25 cmH2O and is ideal for Expiratory Flow and Flow (blower based) applications.
- VN026CM supports pressure ranges from ±2.5 to ±25 cmH2O and is ideal for Expiratory Flow and Flow (blower based) applications.
- VN130CM supports pressure ranges from ±80 to ±130 cmH2O and is ideal for Inspiratory Pressure, Expiratory Pressure and Flow (wall and tank based) applications.
- VN131CM supports pressure ranges from ±60 to ±130 cmH2O and is ideal for Inspiratory Pressure, Expiratory Pressure and Flow (wall and tank based) applications.
- VN150D supports pressure ranges from ±80 to ±150 psia and is ideal for Inlet Pressure applications.
- VN150A supports pressure ranges from 80 to 150 psia and is ideal for Inlet Pressure applications.
- VN-BARO supports pressure ranges from 350 to 1100 mbar and is ideal for Volumetric to Mass Flow applications.

The VN026CM and VN131CM come with extreme resolution that further 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 VN026CM and VN131CM for the first time offer manufacturers single sensor solutions that support a broad range of breathing needs from neonates to adults.

“Each sensor in the VN Series has industry leading 24-bit output resolution and 12 kHz sample rate, improving patient synchrony with unparalleled levels of accuracy and responsiveness,” said Anthony Gioeli, Vice President of Marketing, Superior Sensor Technology. “With the extreme resolution sensors, manufacturers can more easily design one ventilator to support all patients from neonates to adults.”

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 sensors are currently available in sample quantity from Superior Sensor Technology. Click here to view the complete specifications of the VN Series.

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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