



onsemi's New Approach to Inductive Position Sensing Speeds Up Time-to-Market

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Designed to overcome limitations of inductive sensing, the NCS32100 rotary position sensor brings high speed and accuracy to industrial applications

MUNICH--(BUSINESS WIRE)--Nov. 15, 2022-- **onsemi** (Nasdaq: ON), a leader in intelligent power and sensing technologies, today introduced an innovative dual-inductive rotary position sensor, which convinces with its speed and accuracy. The [NCS32100](#) uses a newly patented approach to inductive position sensing, making it an ideal choice for industrial and robotic applications, where fast-moving robotics and machinery are deployed.

While the features of inductive encoders make them very appealing for industrial applications, they have historically been limited to use cases that do not require a high degree of accuracy and operate with low rotational speed. With the NCS32100, onsemi leveraged its 20+ years of expertise designing inductive sensors to combine the reliable benefits of inductive encoders with the accuracy and speed generally associated with mid- to high-end optical encoders. Using a 38mm sensor, the device delivers +/-50 arcsec accuracy at 6,000 RPM. The NCS32100 can support speeds up to 100,000 RPM with reduced accuracy.

"The NCS32100 features firmware that directly outputs absolute position and velocity preloaded in its integrated microcontroller (MCU) providing an easy 'plug and play' solution," said Michel De Mey, vice president of the Industrial Solutions Division, onsemi. "The level of integration the NCS32100 offers can significantly reduce design time and the number of external components needed, allowing for faster time to market and more compact and efficient design."

Inductive sensors have several key features that make them desirable for industrial applications including low sensitivity to almost all forms of contamination or interference, robustness against mechanical vibration, and no first-order temperature dependence. The NCS32100 device also features an integrated calibration routine to account for mechanical misalignment in the sensor. High levels of configurability enable use with a wide range of printed circuit board (PCB) sensor designs, giving OEMs the ability to configure and differentiate their solutions. The integrated MCU includes non-volatile flash memory (NVM) and a configurable interface for communication with the host processor.

[Reference designs and evaluation boards](#) are available to further accelerate the design process for industrial applications. The NCS32100 is available now through onsemi [sales support](#) and authorized distributors.

You can learn more about the NCS32100 and meet with onsemi experts in hall C4 booth 101 at electronica. The world's leading trade fair and conference for electronics is taking place at the Trade Fair Center Messe München, Germany, November 15–18, 2022.

About onsemi

onsemi (Nasdaq: ON) is driving disruptive innovations to help build a better future. With a focus on automotive and industrial end-markets, the company is accelerating change in megatrends such as vehicle electrification and safety, sustainable energy grids, industrial automation, and 5G and cloud infrastructure. With a highly differentiated and innovative product portfolio, **onsemi** creates intelligent power and sensing technologies that solve the world's most complex challenges and leads the way in creating a safer, cleaner and smarter world.

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