

Article | Danfoss Smart Sensors™

Enhancing Industry 4.0 with Danfoss Sensing Solutions

The future of sensing is here—digitalization has revolutionized global industries, creating opportunities for businesses to optimize operations, meet increasingly strict standards for energy efficiency, and prepare for the next wave of industrial innovation. Danfoss Sensing Solutions is committed to joining its customers across the digital frontier with advanced Smart Sensors™—and to sharing the latest Industry 4.0 insights that help you embrace the digital sensor age with ease and confidence.

Industries around the world are rapidly evolving. New technology—fueled by digitalization—has the potential to help businesses achieve greater optimization, boost energy efficiency, and increase safety standards as never before. And while many have adopted the technology necessary to implement Industry 4.0, OEMs, wholesalers, and installers are at a crossroads, considering their next step on the digitalization journey.

“We take our customer’s digitalization journey personally,”

says Bert Labots, Vice President at Danfoss Sensing Solutions.

“Because we know that adopting new technologies is a critical business investment with many opportunities. That’s why we are focused on sharing the latest Industry 4.0 insights while actively developing our Smart Sensors™ portfolio.”

To keep pace with industrial evolution, we must continue to focus on smart sensor technology.

“Smart sensors play an important role in the backbone of Industry 4.0 and its success,” explains Bert Labots. “As a central driving force for innovation, smart sensor technology makes industrial processes more efficient—and has broader economic, environmental, and social benefits.

From megatrends such as smart cities to critical ecological impact such as reduced energy consumption, smart sensors are driving the world forward by delivering relevant data streams.”

With the opportunities of smart sensors at our fingertips, it is time to embrace the digital frontier for a connected, more sustainable future.



Future-proof technology: the benefits of smart sensor connectivity

As urbanization and globalization put pressure on primary industries to achieve greater energy efficiency, increase application safety, and optimize operations, there is no doubt that more and more sensors on the plant floor, production floor, or the application site must be smart, connected, and IIoT-ready.

"We believe that taking the lead in smart sensor portfolios starts with being future-ready today. The Danfoss Smart Sensors™ platform brings brand new opportunities to the digital journey, enabling businesses to achieve more with less," Bert Labots explains.

In our white paper, **Smart Sensor Connectivity of Tomorrow**, we unpack how smart sensors play an important role in implementing connectivity, empowering businesses to achieve ambitious goals for optimization while meeting demands for greater efficiency and safety. And while the benefits of smart sensing solutions are already boosting major industries, the future is ripe with even more development.

Bert Labots continues, "We see a growing field of interest in how machine learning and AI algorithms can increase machine intelligence with predictive maintenance, machine-health monitoring algorithms, and new ways to increase system performance. And we know that smart sensors are crucial to utilizing connectivity in order to keep pace with developing technology."

[Download the white paper](#)

Unlocking the potential of the sensor system architecture

While today analog sensors are seen as the dominant solutions in many industries, new digital smart sensors are increasingly contributing to the road to optimization by collecting, converting, and processing data.

Our white paper, **Communication Protocols for Wired Digital Sensor Interfaces**, demonstrates that by understanding the different types of application communication systems, it's possible to integrate smart features on the sensor side—adding new value and opening up entirely new opportunities across many applications.

"With the sensor system architecture, we can leverage the Internet of Things and different types of communication protocols to find new ways of passing data along to a system—and to bring analog processes into the digital era. Our engineers are at the frontline of IoT developments, ensuring that our smart sensor platform features the latest technology," said Bert Labots.

[Download the white paper](#)