

Wireless I/O technology opens new opportunities for PV Systems

SMC's wireless system provides a new game plan for building machines! The technology results in reduced tubing and wiring as well as a reduced risk of costly downtime due to loose contacts and cable breakage!

Mobile applications with many valves and signals bring challenges

With a traditional, wired solution, the valve manifold, fieldbus node and I/O modules are often placed on top of the robot's "neck" and then tubing and sensor cables are drawn to the tools on the robot arm. Depending on the number of input- and output signals handled, it can become quite a heavy tubing & cable package.

"If you work with robots, you know that this entails challenges. Trying to place a bus cable in this usually very mobile robot hose can quickly mean loose contact and cable breakage" says Fredrik Lind, technical manager at PV Systems.

When SMC presented the EXW1 compact wireless I/O modules as an alternative to traditional fieldbus, PV Systems quickly saw the benefits.

"By placing the I/O signals where needed, we significantly reduce tubing and wiring," says Fredrik.

The key is wireless communication and small components

"In this specific project, the wireless communication means that we only need to place one air tubing and one 24 VDC power supply on the robot tools. SMC helped us selecting small and very flexible valves, all to minimize surface area and optimize air consumption. This also means that a possible tool change becomes much easier as only air and voltage need to be transferred" says Fredrik and continues



[More info about SMC's wireless communication](#)

"It's all about building durable and smart machines for our customers, and SMC's wireless technology creates great opportunities that we did not have before."

The goal is to implement more wireless communication

PV Systems sees great advantages with SMC's wireless communication and the goal is to implement the technology in future projects as well, both on robots and in other applications.

” *Wireless may very well become standard for us in applications where we want to reduce the fieldbus cables and be able to place valves and I/O modules freely*
Fredrik Lind, technical manager at PV Systems

Cooperation and unique technology determined the choice of supplier

The good relationship with SMC, combined with a solution for wireless communication that no other supplier today offers, made the choice of supplier easy.

PV Systems develops and delivers customized automation solutions that streamline customers' production, which contributes to increased profitability and competitiveness in the market. They offer a complete commitment from concept to handover, and with their technical expertise and the customer's unique product knowledge, together they find long-term solutions.

