



Upgrade to SINAMICS on DeviceNet®

Your benefits include:

- No modifications to existing PLC code or network configuration
- Minimal engineering assistance
- Re-usable assets
- Removal of high-risk products
- Low-cost with readily available products
- Pre-developed .CLI files that mimic AB PowerFlex drives
- Pre-programmed DeviceNet communication modules from Hilscher
- Saves time and eliminates the need for legacy PLC and network expertise
- No network configuration

Replacing drives on DeviceNet®

Drive replacements on DeviceNet systems can present maintenance personnel with an array of challenges and frustration. Typically, multiple software packages, code modifications, and firmware revisions need to be managed to make these systems work correctly.

Siemens has developed a solution that will make replacing a failed drive on DeviceNet extremely easy. Through relationships with Hilscher NA, Siemens has developed a simple solution to easily replace failed AB drives on DeviceNet with no modifications to the PLC or DeviceNet code and configuration. Modules come pre-programmed and are ready for connection to the SINAMICS drives family.

Hilscher communication modules, combined with embedded CLI (command line interface) capability in the SINAMICS IOP-2 interface module, make the SINAMICS drive mirror the capability and network configuration of the replacement drives.

SIEMENS

 **hilscher**

DeviceNet™

Case Study

Challenge:

A beverage manufacturer in the U.S., specializing in the production and distribution of purified drinking water and carbonated beverages faced a challenge in maintaining and upgrading its drive systems. Their existing infrastructure relied on legacy Allen-Bradley (AB) drives over DeviceNet, which presented multiple issues:

- AB's lack of a viable solution for their legacy drives
- Time-intensive reprogramming in AB software
- Increased downtime during power outages, resulting in costly repairs and delays

Strategy:

In October 2023 during Electro-Matic's Brew 'N Learn event, presenting the Siemens topic: "Switching to Sinamics" customers attended and were introduced to the advantages of Siemens SINAMICS drive platform. After this event, Electro-Matic worked with these customers to help them seamlessly switch from AB to Siemens drives by:

- **Educating:** Demonstrating SINAMICS drive platform integrated with AB PLCs, showcasing its compatibility and functionality on their Chrome machines and other equipment.
- **Providing a Working Demo:** Highlighting how the Siemens platform easily replace failed AB drives on DeviceNet with **no modifications to the PLC's**.
- **Addressing their Legacy System Challenges:** This helped position Siemens drives as a superior alternative to AB drives in situations such as power outages, allowing the customer to replace legacy systems with minimal disruptions.

Solution:

The SIEMENS SINAMICS drive platform provided the customer with a dual-solution approach, offering support for both Ethernet IP and legacy DeviceNet protocols. This enabled the customer to:

- Replace 45 drives initially. Remainder of 350 drives will be replaced during scheduled downtime, by plant maintenance personnel
- Maintain compatibility with existing AB PLCs, ensuring a smooth integration process **without PLC changes or code modification**.

Outcome:

The implementation of the SIEMENS SINAMICS platform resulted in immediate benefits:

- **Reduced Maintenance Time:** Eliminated remapping requirements, streamlining the maintenance workflow
- **Cost Savings:** Avoided purchasing new AB drives by transitioning to Siemens drives, offering a more economical and scalable solution
- **Operational Efficiency:** Improved uptime and reliability by addressing legacy drive limitations effectively

