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INSPIRING INNOVATIONS

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Future-proof control system improves ROI and speeds up deployment

Highlights

- An automotive supplier needed a future-proof control system for its injection molding machines

- The manufacturer saw great value in the open architecture of PLCnext Technology

- The solution comprised nearly all Phoenix Contact products, including surge protection and power supplies for the Limited Lifetime Warranty (LLW) protection

> " The customer saw the value in a complete Phoenix Contact solution. "

Customer profile

The customer manufactures instrument panels and door panels for automotive interiors.
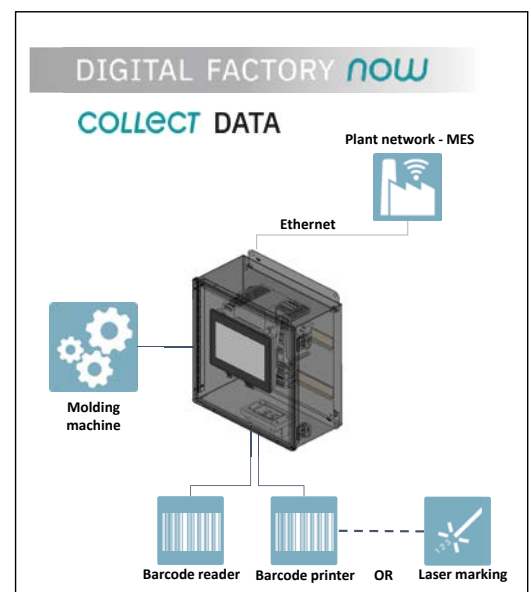
Challenge

The customer needed to develop a standard control box that could be mounted on all injection molding machines. Controls will communicate with an MES system using OPC UA to print labels for each part coming out of the molding process. The part will then be barcode-scanned to verify. The customer needed a future-proof solution that would meet all future development of laser marking and vision detection if required.

Solution

The Phoenix Contact Vertical Market Management (Factory Automotive) team and the Automotive Engineering Services team collaborated to develop a 100-percent Phoenix Contact solution. Phoenix Contact products stood out for a variety of reasons:

- PLCnext provides an open, future-proof Factory 4.0 platform to develop from
- Smart Elements I/O provides value and performance
- Ethernet switches offer significant value and capabilities
- Power supplies offer an incredible feature set and performance
- PT terminal blocks are best in class

The new solution includes an open-source, license-free data collector, which reduces costs.

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COLLECT DATA
Plant network - MES
Ethernet
Molding machine
Barcode reader   Barcode printer   OR   Laser marking

Simple configuration for interfaces results in faster development. The system is easy to expand, so it is future-proof. Formatting of data for MES increased connectivity. The built-in cybersecurity for OT to IT ensures efficient utilization of resources. The HMI has a built-in interface for local or mobile use.

Phoenix Contact provided all of this at a competitive price point, saving the customer money. The customer saw the value in a complete Phoenix Contact solution. If they have an issue, they work with a single source to solve the problem quickly. There is less finger-pointing.

The system included Phoenix Contact power supplies and surge protection, so components are backed up by Phoenix Contact's LLW.

Results

The new system significantly improved the manufacturer's ROI, and the customer will be able to deploy future projects much faster. The manufacturer's quality, process, and visualization have also improved. Because the system uses open-source software through the PLCnext platform, it is protocol-agnostic and has nearly limitless adoption capability.