Push-In Plus technology reduces wiring time by 20%

Lead time shortened by 2 hours per control panel thanks to Omron relays

The Dutch Panel Builder VBE Industrial Electronics achieves a substantial part of its turnover from building panel cabinets for Jansen Poultry Equipment, which develops and produces poultry housing systems with controls, for worldwide distribution. It has recently realized a large project that consists of 16 stables of 100 by 18 meters. Within ten weeks, VBE supplied nearly one hundred control cabinets, lighting cabinets and clamps boxes to operate the installations. This relatively short delivery time, meant efficiency during assembly, was of great importance. Using Omron MY4 relays with the new Push-In Plus technology reduced the lead time per panel by two hours.

Push-In Plus technology makes the wiring of control panels much easier and faster.

The benefits of the Push-In Plus technology

Director Arjan van Beek of VBE is enthusiastic about Omron's 'Value Design concept', which has led to a standardization of the component range. Not only have they become smaller, but also better matched to one another and therefore easier to install. This saves space in the cabinet and the components are more easily interchanged. Constructing the relay boxes for Jansen Poultry Equipment, VBE has gained a lot experience with the new Push-In Plus technology, which makes the wiring of control panels much easier and faster. Compared to screwless terminal connections of other suppliers, plugging in the wires requires virtually no force (only 8 Nm), which means that no tool is needed. The holes for the wires are spacious and are on the front of the relay sockets, making them easily accessible. VBE also works with ferrules for the cabling in its control cabinets to guarantee a better quality of the connections. To install the ferrules VBE uses an automatic ferrule and wire crimping machine.
The most experienced technician of VBE is able to insert fifty wires per minute, achieving significant time savings. Especially in the control panels of the recently delivered project, where around 70 percent of the components are relays.

Van Beek: "We save two hours per cabinet on the time that was required for the wiring of similar relay cabinets. Usually, the wiring takes about twelve hours; now we complete it in ten. That is a huge advantage in an industry which is striving to reduce the lead time and the labor costs. And thanks to the new technology this also improves the quality. If you cannot insert the wires easily,

wiring faults can occur. The technicians will then sooner insert the wires into a wrong contact number or the wires are not properly fixed. With the new Push-In Plus technology we do not have that problem anymore. It is also important that the local service technicians can easily replace relays and other components. The Push-In Plus technology also helps here."

Complete Omron data sets

Design, purchasing and production are also becoming more professional. For the design of panel cabinets, many panel builders work with electrical CAD programs such as EPLAN or See Electrical, that VBE uses. Such programs are becoming more functional, making the design of a cabinet increasingly easier. "At this point, we get the data sheets of components we use from drawings on Internet. It is therefore of great importance for component suppliers to organize their digital information properly" explains Van Beek. "Often engineers search the Internet for the specifications and if they are not able to find them quickly enough, they go to another site. Omron has organized that online information well. You can even download complete data sets that you can import directly into the CAD program and that allows you to integrate the components easily into the drawings. That saves a lot of time, especially with PLCs. Based on the design you can automatically create material lists, which you can use as the basis for the order lists. You can also easily control work preparation, planning and inventory management with such systems. This means we not only optimize the internal processes, but we can also offer the client a better product at a competitive price."

Downloading complete data sets that can be imported directly into the electrical CAD program.

Smaller and better matched to one another and therefore easier to install.

About VBE Industrial Electronics

VBE Industrial Electronics was established in 2004 and electrical panel construction, machine cabling and cable assembly. VBE provides the whole process from engineering and production to maintenance, NEN1010 inspections and fault repair services. The agricultural sector and the food industry account for almost half of the turnover. For example, VBE develops installations for climate control, air treatment, and process automation. In addition, VBE builds panel cabinets for sewage pumping stations, biogas facilities, water purification plants, food & beverage and pick & place installations. VBE builds a total of 1,200 control panels per year.