

Guiding Light

Turck's pick-to-light system ensures error-free and significantly faster picking processes at Skylux in Belgium – even with temporary staff



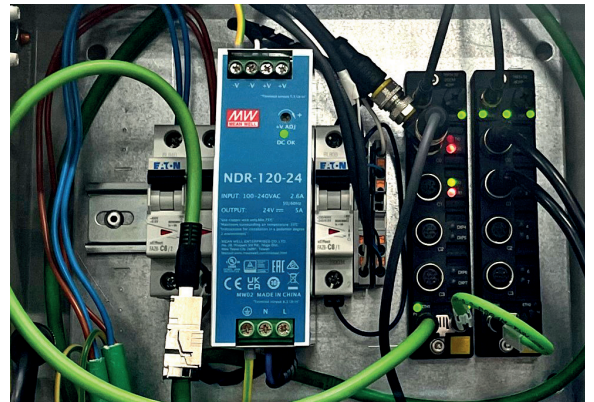
A total of 750 PTL110 indicators guide operators through the picking process at Skylux – and halve the picking time; the TL50 Tower Lights with beeper module (top right) warn operators if they make a mistake

“As a family business, Skylux has been bringing natural daylight into people’s lives for three generations,” says Veronique Mattheeuws, chief commercial officer at Skylux. The company from Stasegem in Belgium is known for its skylight domes and flat roof windows but is now also focusing on a second mainstay: “Outdoor Living.” “Our aluminum conservatory systems also bring the magic of nature indoors,” Mattheeuws explains and adds: “We believe that we can constantly improve, in all areas. That is why we are continuously striving for better solutions, services and products – for our customers, but also for our employees.”

Pick-to-light solution

Skylux recently made this ambition reality in a project in the order picking department for the Outdoor Living division. Skylux is a B2B supplier that delivers its products to installers, who are responsible for ensuring perfect installation and processing at the end customer’s premises. Each order contains numerous small parts: Nuts and bolts, manuals, end caps, rubber seals, cables and more. These are picked by employees and then undergo a comprehensive quality check before the order leaves the warehouse. “As inspections have shown, order picking was very time-consuming and prone to errors. That’s why Skylux wanted to invest in a pick-to-light solution,” Tsjelle Stevens, founder and managing director of integration partner Code Care explains.

Searching for indicators, finding a complete solution Code Care supports manufacturing companies with their digital transformation projects. The integration partner considers Skylux one of its most important customers and was also responsible for the implementation of this pick-to-light project. Stevens had already had a positive experience with the robust and versatile indicators from Banner Engineering and therefore also planned to use them for this solution. The system engineers at Turck Multiprox put together a complete solution for Code Care and Skylux. Besides the TL50 tower lights, this consists of the cascadable PTL110 pick-to-light indicators with display, touch button and



The ARGEE control logic on the TBEN block modules translates ERP data into light signals for the PTL110 - without external PLC



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Tsjelle Stevens | Code Care

optical sensor as well as the Turck TBEN-S2-2COM-4DXP intelligent I/O modules with the ARGEE logic control software integrated as standard. Code Care was able to connect the solution to Skylux's ERP system without any problems.

An end to lengthy article searches

"It all starts with the operator scanning a QR code on one of these blue containers with their tablet," Stevens explains. "The corresponding picking order appears on his tablet. He then walks along the shelves with the trolley that holds the container. There are a total of 750 picking locations in the warehouse. The operator works each aisle in turn. On his tablet, he sees a picture of the article he needs to take. The PTL110 indicator on the container with the article to be taken lights up green. The picker is thus visually guided without having to conduct a lengthy search." The new system now makes order picking error-proof. If an operator takes an item from the wrong bin, one of the fifteen TL50 tower lights outputs a warning signal and lights up red. "A visual signal provides additional safety," Stevens explains.

Order picking in half the time – even for beginners

After taking an article, the operator presses the button on the PTL110 to switch off the green light and move on to the next article. The PTL's capacitive pushbutton is very robust but does not require a great deal of pressure. The operator is thus able to work through the entire order article by article. "In the past, it could easily take an hour and a half, but now it only takes half as long," he says. In the peak season, when many temporary workers are also taken on, the time savings become even more noticeable for Skylux. "While we previously had to train each temporary employee for four hours to familiarize them with the entire warehouse and all the items, new colleagues now can now start picking after just half an hour." The numerical display on the PTL110 indicators also shows the exact number of parts that need to be taken.

Dynamic and flexible adaption

The signals from the indicators are controlled by Turck's TBEN-S2-2COM-4DXP I/O modules. "They are IP67 rated, so trouble-free operation is ensured in any environ-

ment. Even more important is their integrated intelligence. The TBEN-S block modules translate the data from the ERP system into commands for the indicators and the associated display without the need for a PLC. The free ARGEE software on the modules takes care of this," Stevens explains. The indicators are connected in a cascade. This means that only one port on the TBEN-S-2COM is required to connect 64 or more PTLs in series. The I/O module and PTL indicators communicate via Modbus RTU. "The combination makes it a particularly dynamic and flexibly adaptable system. If picking stations are added or the error analysis shows that it is better to place certain items further apart, this can be implemented very easily and flexibly."

Easy work

Tsjelle Stevens, who is now a familiar face in the Skylux workshop, notes that the employees are already very satisfied. "It really made their work a lot easier. They used to have to go through the labels to find the right article code, now they can see immediately where they need to go." His own task of installing the pick-to-light hardware and customizing the ARGEE software, as well as writing the interface between the pick-to-light solution and Skylux's ERP system, also went smoothly. "This was child's play as ARGEE works with standard protocols," Stevens sums up.

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QUICK READ

Skylux, the Belgian specialist for skylights, flat roof windows and conservatories, has digitalized its order picking with a pick-to-light system from Turck and Banner Engineering, in collaboration with integration partner Code Care. The complete system, consisting of cascadable PTL110 indicators, TL50 tower lights and decentralized TBEN-S-2COM I/O modules with an integrated controller logic, significantly reduces errors and picking times – and makes the work of both established employees and temporary staff easier.