

≡ OPTICON



ESL Solutions

Proven and Reliable Opticon ESL Solutions

Opticon Electronic Shelf Label (ESL) solutions offer a fast, efficient and competitive edge for modern retailers. Manage real-time pricing, create interactive in-store experiences and aggregate related media and product info. Transform customer engagement and streamline store operations with our advanced ESL system.



Why Choose ESL

Today's retailer needs to respond quickly and effectively to frequent market changes to optimize and enhance their store operations. Opticon ESL solutions address these critical factors of the process: pricing, promotion and productivity.

Price Control

ESL is a digital price tag that conveniently presents prices, product details, promotions and images. Use ESL to instantly and accurately execute price changes from a centralized location. ESL ensures that data is accurate and eliminates price discrepancies between the shelf and the checkout. ESL also improves customer experience, reduces checkout time and presents a positive brand image.

Promotional Opportunity

Fierce competition requires a strategic pricing policy. ESL enables responsive promotional setups. Easily implement time-sensitive discounts, reduce waste on perishable items and support graphic displays for eye-catching promotions.

Productivity Improvement

Implementing ESL eliminates the need to manually adjust and maintain product prices and information. Use staff more efficiently to focus on serving customers, stocking shelves and other operational tasks.

Benefits

- **Accurate and Reliable Pricing**
Ensure consistent and error-free price display
- **Real-Time Pricing Promotions**
Quickly adapt to market changes with on-demand updates
- **Enhanced Responsiveness**
Implement strategies swiftly to stay competitive
- **Improved Margins and Sales**
Optimize pricing to boost profits
- **Reduced Waste and Labor Costs**
Decrease manual labor and minimize product waste
- **Enhanced Customer Satisfaction**
Provide up-to-date information for a better shopping experience
- **Centralized Management**
Regulate all devices from one location with full visibility
- **In-Store Marketing and Personalized Promotions**
Create targeted campaigns to drive sales



How ESL Works

Opticon ESL solutions can be easily installed, updated and monitored at the store level or remotely from company headquarters or the back office. Simply connect a POS or ERP system to the Opticon ESL Web Server Software in the EBS-50 smart base station for seamless data integration and wireless communication with the electronic shelf labels. Create customized ESL layout using the ESL Template Designer software to display data in alignment with business strategy and unique brand messaging. Experience maximum efficiency with Opticon ESL.



The Essentials



SE-range
Electronic Shelf Label

Opticon ESL is used in grocery retail, self-checkout, pharmacy, warehouse, order picking and room signage. The applications are endless.

With a newly designed housing and matte screen for sharper readability, the SE line is an excellent product choice for any ESL roll-out.

Opticon offers a wide range of sizes and a variety of display colors including red and yellow. We guarantee up to five-year battery lifetime, and all ESL models come with one RGB LED with adjustable brightness.



Mounting
Bracket Solutions

We provide an extensive range of secure, durable and aesthetically pleasing ESL mounting options and accessories for in-store shelving.

Our broad product offering fits the most popular shelving systems on the market. Our shelf mounts are lightweight, allowing for an easier and cost-effective migration from traditional paper labels to ESL.

The SE-range Accessories Brochure provides detailed information on all available options and installation.



Communication
(Smart) Base Station

The base station provides a connection between the ESL Web Server Software and the labels to easily update the system as needed.

From small retail to multi-store business, implementation of the base station is very simple. All ESL are connected to the base station which is integrated with the back-office system.

One base station can support up to 2,500 labels and has an average 25-meter indoor wireless radius (100 meters open-field).

The EBS-50 Smart Base Station serves as the central communication hub for managing the ESL system. It combines a Linux microcomputer with a base station, running the ESL Web Server Software and facilitating wireless communication with the ESL.

With its own database server hosting capability, ESL management can be conveniently accessed and controlled from any smart device on the same network.

No additional hardware installation is needed, making this a compact and efficient solution. Its easy installation process only requires power and a network connection.

The EBS-40 Base Station is used to expand coverage as an ESL system implementation grows. It can also be used as a primary base station when the ESL Web Server Software is hosted on a local PC.

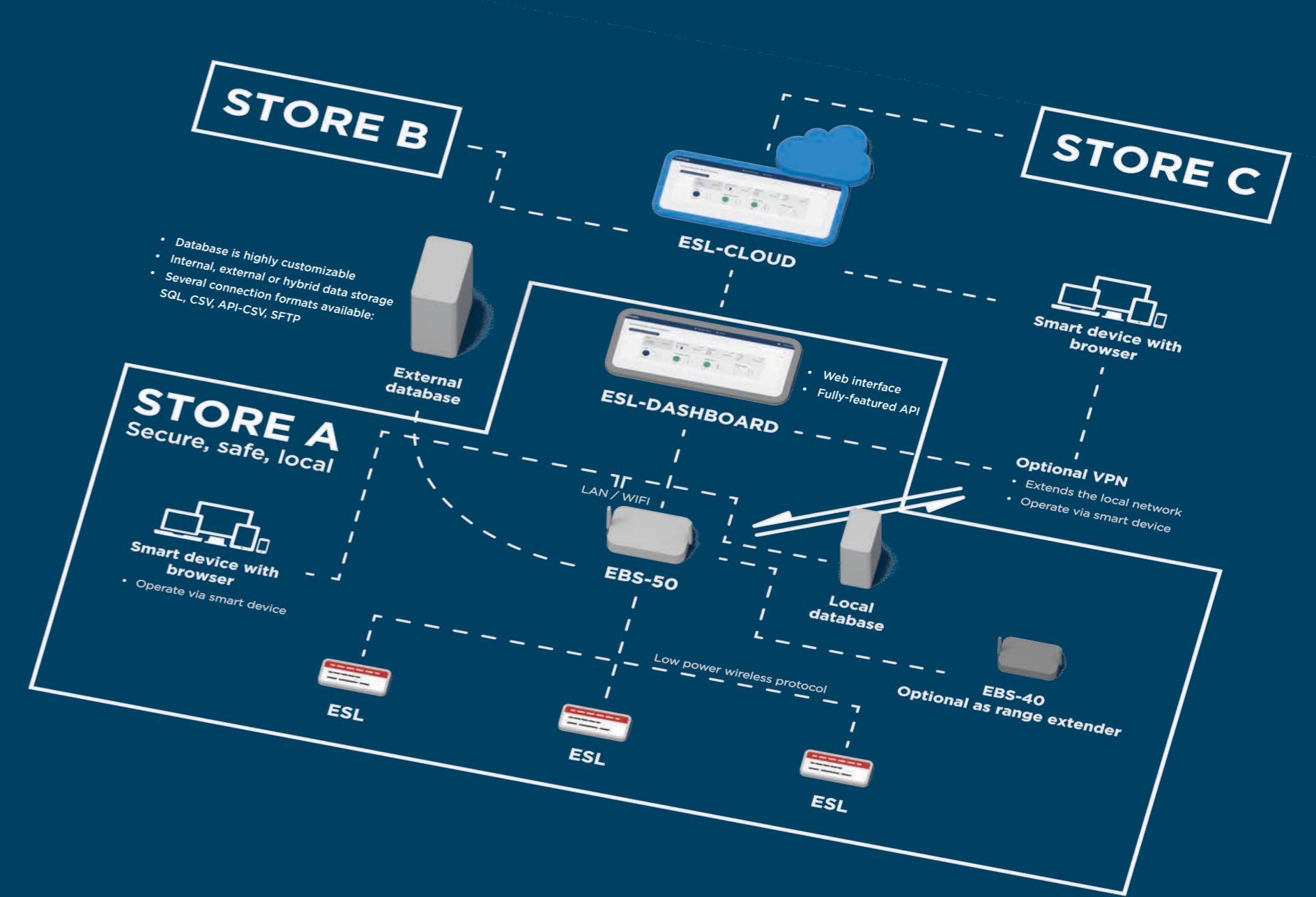


“Opticon’s solution was ready for immediate use with minimal setup required. Extensive technical and commercial support ensured successful implementation and operation.

Opticon’s Service levels were perceived as excellent during the test and implementation.”

Pedro Veiga Ferreira,
PRHGE Portugal Co-CEO & CFO

ESL Workflow



Comprehensive Range to Meet Every Need



SE-214
2.14" E-paper display:
250 x 122 pixels

Color display:
black, white, red
black, white, red, yellow

Active area:
48.6 x 23.7 mm

Pixel pitch:
130 dpi

Dimensions:
72.8 x 35.8 x 13.7 mm



SE-214F ❄️
2.14" E-paper display:
250 x 122 pixels

Color display:
black, white

Active area:
48.6 x 23.7 mm

Pixel pitch:
130 dpi

Dimensions:
71.5 x 38.5 x 15.2 mm



SE-266R
2.66" E-paper display:
296 x 152 pixels

Color display:
black, white, red

Active area:
60.1 x 30.7 mm

Pixel pitch:
125 dpi

Dimensions:
86.9 x 42.9 x 12.9 mm



SE-290
2.9" E-paper display:
296 x 128 pixels

Color display:
black, white, red
black, white, red, yellow

Active area:
66.9 x 29.1 mm

Pixel pitch:
112 dpi

Dimensions:
94 x 43.2 x 11.8 mm



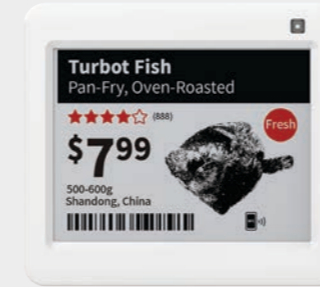
SE-290A
2.9" E-paper display:
296 x 128 pixels

Color display:
black, white
black, white, red, yellow

Active area:
66.9 x 29.1 mm

Pixel pitch:
112 dpi

Dimensions:
103.5 x 43.2 x 12.6 mm



SE-420
4.2" E-paper display:
400 x 300 pixels

Color display:
black, white, red
black, white, red, yellow

Active area:
84.8 x 63.6 mm

Pixel pitch:
120 dpi

Dimensions:
104.9 x 93.9 x 13.7 mm



SE-583RY
5.83" E-paper display:
648 x 480 pixels

Color display:
black, white, red, yellow

Active area:
118.8 x 88.3 mm

Pixel pitch:
138 dpi

Dimensions:
139.9 x 119.5 x 14.3 mm



SE-1160R
11.6" E-paper display:
960 x 640 pixels

Color display:
black, white, red

Active area:
244.5 x 163 mm

Pixel pitch:
100 dpi

Dimensions:
271.8 x 196.2 x 14.2 mm

* Standard RGB LED, Optional: NFC

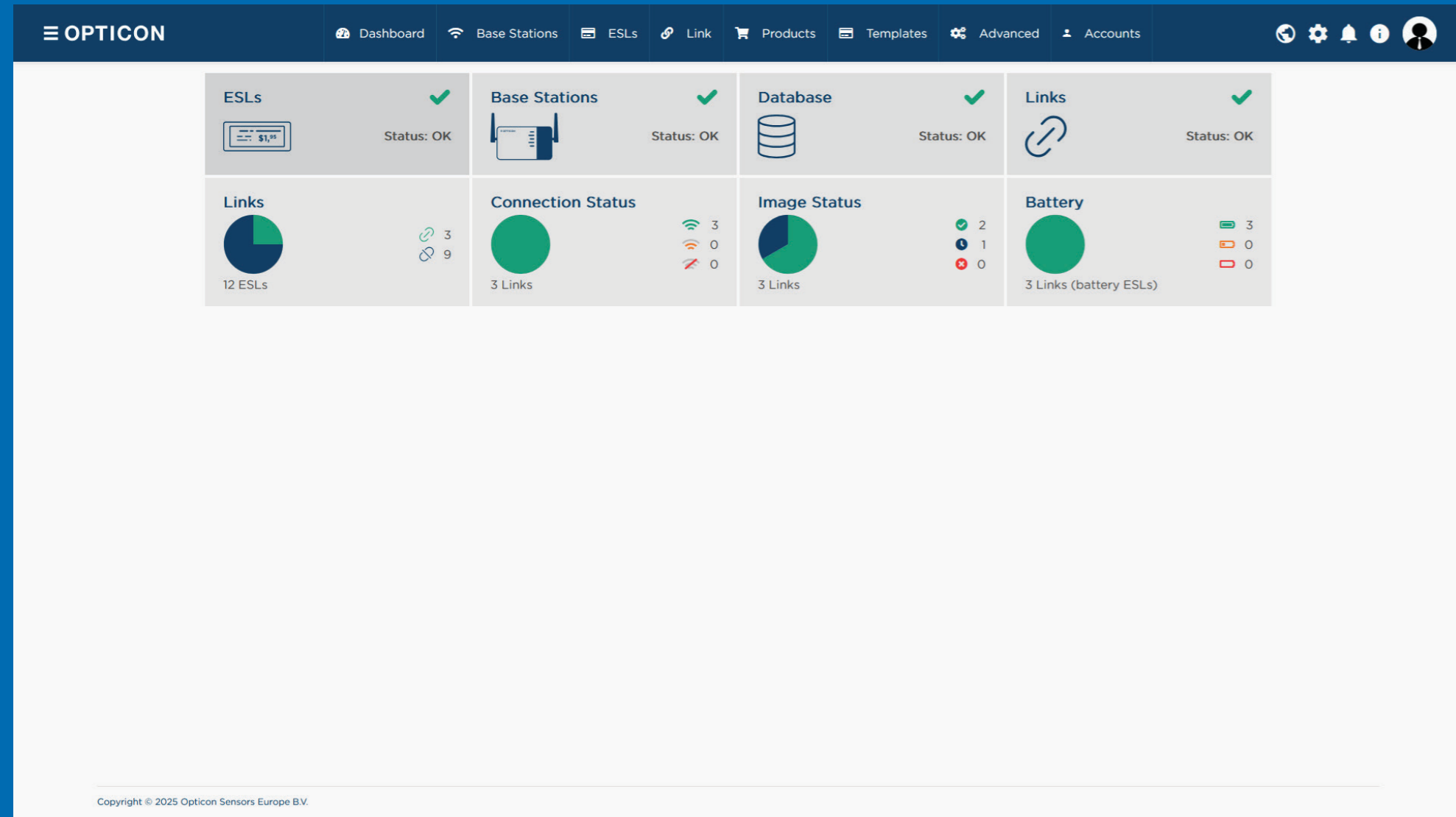
The Power of Color



Supplemental LED

In the context of ESL, the LED has several purposes, primarily aimed at enhancing visibility and utility of the labels. Here are some functional options:

- 1. Visual Cue:** The LED can be used to draw attention to specific items. This is particularly useful during promotions, sales, or when a product is running low in stock. A flashing or color-changing LED can quickly alert store personnel or customers to important information.
- 2. ESL Status Signal:** The LED can indicate the health of the ESL. For instance, a green LED might designate the label is functioning correctly, while a red LED could signal a problem, such as a low battery or connectivity issue.
- 3. Guidance and Navigation:** In large stores or warehouses, the ESL LED can guide staff to specific items. This can be useful for restocking, inventory checks, or fulfilling online orders. By lighting up in a sequence, a path can be created for employees to follow.
- 4. Customer Interaction:** The LED can enhance the customer shopping experience. For example, it can illuminate when a customer interacts with the label, such as scanning a QR code or using an NFC-enabled device. This interaction can provide additional product information or special offers.
- 5. Operational Efficiency:** The LED can help in the functional tasks of a store. During inventory audits or when changing prices, the LED can show which labels have been updated and which still need attention, ensuring accuracy and efficiency.



Opticon ESL Web Server Software

The Opticon ESL Web Server Software provides retailers with a comprehensive set of features and capabilities to efficiently manage and control their ESL system. Here are some key aspects of the ESL Web Server Software:

Pricing Management

The software allows retailers to centrally manage and update prices for individual products or entire product categories. Retailers can easily set and adjust prices based on factors such as promotions, discounts, or pricing strategies. This ensures accurate and consistent pricing across all ESL in the store.

Product Information

The ESL Web Server Software enables retailers to manage and display detailed product information on the ESL. This includes product descriptions, features, specifications and other relevant details. Retailers can easily update this information in

real-time, ensuring that customers have access to accurate and up-to-date product information.

Promotions and Special Offers

With the ESL Web Server Software, retailers can create and manage promotional campaigns directly on the ESL. They can set up time-based promotions, flash sales, or special offers, and the software will automatically display the updated pricing or promotional messages during the specified period.

Stock Management

The ESL Web Server Software can integrate with inventory management systems to provide real-time stock updates on the ESL. This allows retailers to efficiently manage stock levels, monitor inventory accuracy and avoid out-of-stock situations. ESL can display the number of items available or indicate when a product is low or out of stock.

Opticon ESL Web Server Software

Template Design and Customization: Retailers can design and customize the layout and appearance of the ESL data using the ESL Template Designer software. They can create visually appealing labels that align with their brand identity and suit their product categories. The software provides tools for text formatting, image placement, color schemes and dynamic content creation.

Integration with Retail Systems: The ESL Web Server Software can integrate with third-party POS, ERP and inventory management systems. This allows for seamless data exchange and synchronization, ensuring that pricing, stock levels and product information are consistent across all systems.

Scheduling and Automation: The ESL Web Server Software allows retailers to schedule automatic updates on price changes, product information or promotions. This ensures the ESL are always displaying the correct and relevant information without requiring manual intervention. Retailers can plan and automate updates based on specific time frames or triggers, allowing for greater efficiency.

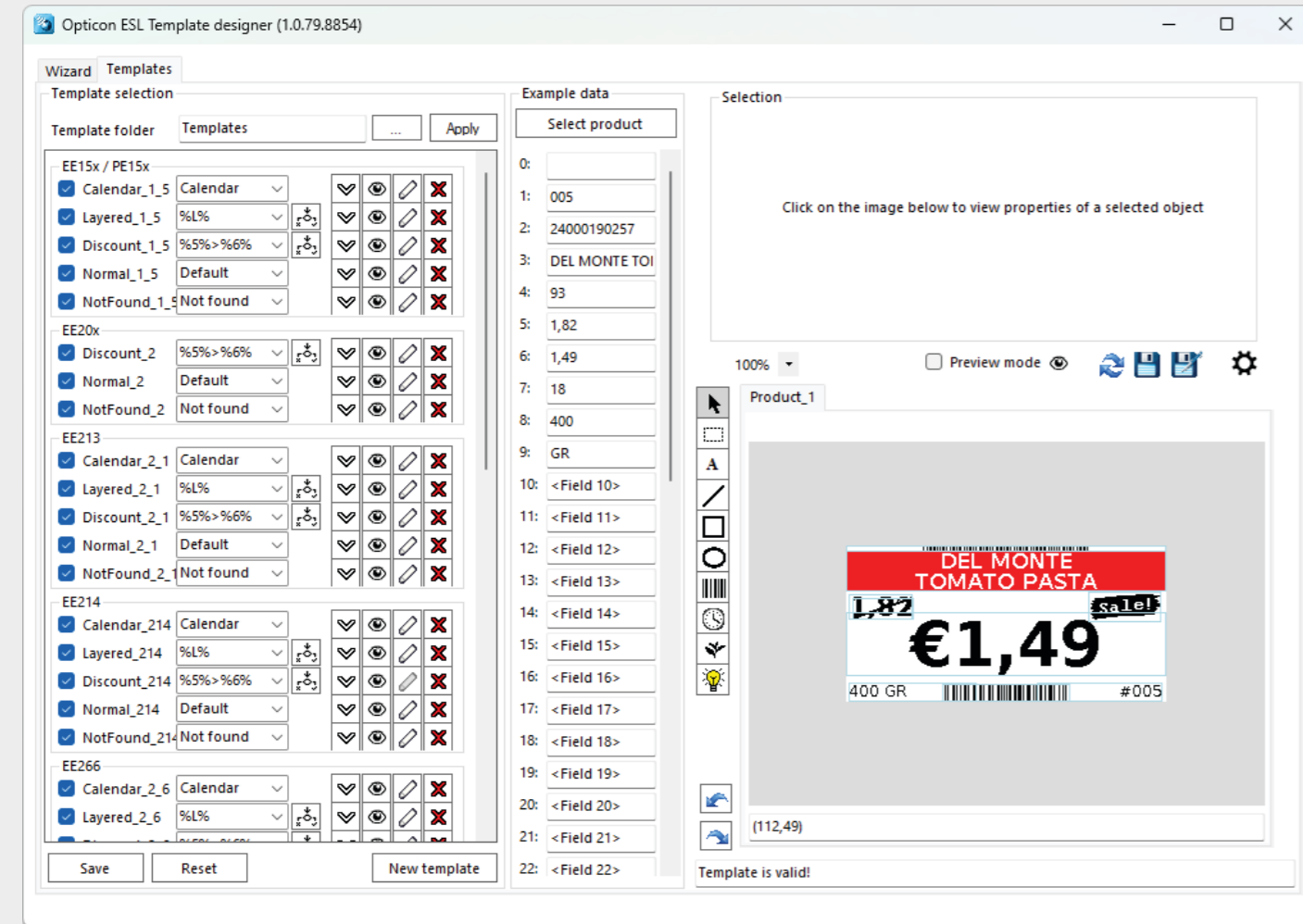
Reporting and Analytics: The ESL Web Server Software provides a clear and concise dashboard overview of the health of the ESL ecosystem. It displays important information about the ESL and base station status including battery levels and radio signal quality, as well as synchronization timetable and other vital data.

The screenshot shows the 'ESLs' dashboard in the Opticon software. It features a navigation bar at the top with options like Dashboard, Base Stations, ESLs, Link, Products, Templates, Advanced, and Accounts. Below the navigation bar, there's a search bar and a filter section with buttons for Problems, Warnings, Ok, Inactive, Active, Pending, Unlinked, and Linked. A 'Link ESL' dropdown menu and a 'Go' button are also present. The main content area displays a table of ESL devices with the following columns: Unique ID, MAC address, Description, Poll interval, Battery, Variant, Version, LQI, Last poll, Base station, Status, LAN id, and Status. The table contains 15 rows of data, with the first three rows highlighted in blue. The footer of the dashboard shows 'Copyright © 2025 Opticon Sensors Europe B.V.' and '3 of 28'.

Unique ID	MAC address	Description	Poll interval	Battery	Variant	Version	LQI	Last poll	Base station	Status	LAN id	Status
B2600C16	B2600C16		20	🟢	EE213R	IRWV0149	7	7 seconds ago	EBS40_1109	POLLING	0000	🔌
B2C0512E	B2C0512E		20	🟢	EE750R	IRYX017B	135	15 seconds ago	EBS40_1109	POLLING	E51F	🔌
B28226A4	B28226A4		20	🟢	EE153R	IRTV0149	10	6 seconds ago	EBS40_1109	POLLING	0000	🔌
B2C007AD	B2C007AD		20	🟢	EE750R	IRYV0156	9	13 seconds ago	EBS40_1109	POLLING	E51E	🔌
B2400ABD	B2400ABD		20	🟡	EE293R	IRVV0169	10	Now	EBS40_1109	POLLING	0000	🔌
B2400ACO	B2400ACO		20	🟢	EE293R	IRVV0149	9	14 seconds ago	EBS40_1109	POLLING	0000	🔌
B2400AC1	B2400AC1		20	🟢	EE293R	IRVV0149	10	Now	EBS40_1109	POLLING	0000	🔌
B2400AC5	B2400AC5		20	🟢	EE293R	IRVV0149	11	15 seconds ago	EBS40_1109	POLLING	0000	🔌
B2A00D70	B2A00D70		20	🟡	EE420R	IREV0134	126	3 seconds ago	EBS40_1109	POLLING	E51F	🔌
B2A00D71	B2A00D71		20	🟢	EE420R	IREV0134	56	1 second ago	EBS40_1109	POLLING	E51E	🔌
B2A00D72	B2A00D72		20	🟢	EE420R	IREV0134	55	11 seconds ago	EBS40_1109	POLLING	E51E	🔌
B2A00D73	B2A00D73		20	🟢	EE420R	IREV0134	59	3 seconds ago	EBS40_1109	POLLING	E51E	🔌
B2A00D7B	B2A00D7B		20	🟢	EE420R	IREV0134	107	7 seconds ago	EBS40_1109	POLLING	E51F	🔌

In summary, the ESL Web Server Software provides retailers with a comprehensive suite of tools and functionalities to manage pricing, product details, promotions, inventory levels and template customization. By centralizing and automating these processes, retailers can improve operational efficiency and enhance the customer experience overall.

ESL Template Designer



The Opticon ESL Template Designer empowers retailers to create visually appealing and informative ESL display content that enhances the in-store experience for customers.

With its easy-to-use interface, customization options, dynamic content integration, multilingual support and testing capabilities, this software provides retailers with the flexibility and creative control to design compelling ESL displays that effectively showcase their products and brand.

Key Features and Benefits

User-Friendly Interface: The ESL Template Designer is intuitive to use and enables retailers to easily create and customize ESL templates without the need for advanced design skills. The software provides a range of tools, including drag-and-drop functionality, text editing, image placement and formatting options, making template creation a seamless process.

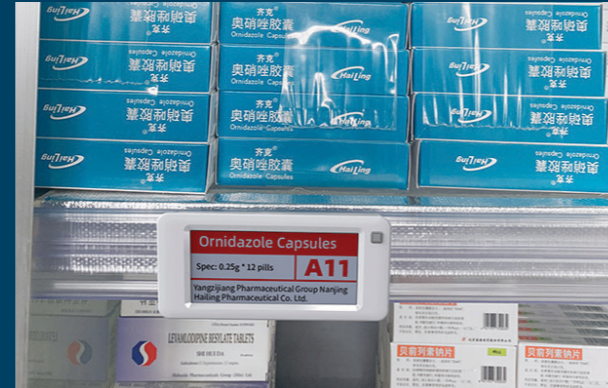
Customization Options: Retailers have full control over the design elements of their ESL templates. They can customize fonts, colors, layouts and graphics to create a consistent visual experience across the store. This level of customization allows retailers to effectively convey their unique brand identity and product messaging.

Dynamic Content: The ESL Template Designer supports the inclusion of dynamic content, such as product names, prices, barcodes and promotional information. Retailers can integrate data from their inventory or POS systems directly into the templates, ensuring accurate and up-to-date information is displayed on the ESL.

Multilingual Support: The ESL Template Designer supports multiple languages, allowing retailers to create templates catered to their unique customer base. This feature is particularly beneficial for retailers operating in international markets or areas with a diverse population.

Preview and Testing: The software provides a preview function that allows retailers to visualize how the templates will appear on the ESL before deployment. This feature enables them to make necessary adjustments and ensure the labels meet their design requirements. Additionally, testing capabilities allow retailers to simulate label display on various ESL models to ensure optimal compatibility and readability.

Template Library: The Opticon ESL Template Designer offers a library with pre-designed templates that retailers can use as a starting point or for inspiration. These templates cover various product categories and allow for further customization to suit specific needs.



Why Choose Opticon

- 1. Customer-Centric Approach:** Your success is our success. We listen, adapt and provide solutions that truly make a difference.
- 2. Proven Track Record:** Our clients consistently report high satisfaction levels and improved operational efficiency after implementing our ESL solution and are impressed with our support and customization services.
- 3. Continuous Improvement:** We are committed to ongoing enhancement of our product and services, driven by the latest technology and customer feedback.
- 4. Security First:** Our customization options are designed with security in mind, ensuring that modifications do not compromise data integrity or system safety.

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About Opticon

We scan, connect and communicate

We are Opticon, a Japanese manufacturer that has been developing barcode scanning technology since 1976. You can find Opticon product everywhere across the globe. From the electronic shelf label at your local supermarket to the scanner used at a large retail chain, parking garage kiosk or medical test facility, Opticon is one of the world's key players in the automatic identification market.

This is what we can do for you

Do you have specific demands or requirements? No matter which business application or market, Opticon thrives on developing solutions tailored to your needs. Opticon is the right partner for all your intelligent barcode scanning solutions.



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