Accessories for Opticon

PE Range ESL

Display Solutions

OPTICON
To create a distinctive business environment Opticon offers both e-paper and colored digital signage solutions. Opticon’s wireless Electronic Shelf Label (ESL) system is based on a radio architecture and e-paper label that provides advantages in performance, cost and power consumption.

Our ESLs are suitable for industries such as retail, fashion, catering, mobile shops, jewelry, home appliances, pharmacy, industry, warehouse and room signage. The benefits of digital signage are that information can be presented more easily, prices can be adjusted instantly, and the signs can adapt to the context and audience, even interactively. Opticon’s solutions aim to dramatically impact how companies operate their businesses providing a superior platform that can improve profitability and enable new customer-facing applications, promotions and loyalty programs.

What diversifies our ESL solutions is the added value of NFC, LED indicators and sound feedback. This enables you to use customer loyalty cards, payment and even pick-to-display solutions. The LED can be used as an indicator for a certain action, to attract attention or to find a product in a warehouse. When you develop a custom-made application, you can add even more functionalities to the Opticon Powered ESL-range (PE-Range) that gives your customer control of their shopping experience.

Opticon took the batteries out of the ESL to create a slimmer fit, making the shelf look neat and the store stands out in the crowd. The dedicated power rail supplies continuous power, which makes the PE-range a carefree solution by not having to swap batteries in due time. This smart design taps into modern society and the customer’s wishes. The PE-range creates the ‘wow-experience’ we are all looking for.
The PE Range ESL Solution can be used in a variety of different settings: from retail stores to catering and even warehouse applications. Because the PE Range is such a versatile solution the application possibilities are almost endless. Read more about it in the brochure ‘Cashier Less Shopping’ or contact our local teams who can help you find the right solution for your application.

To get a better understanding of the lay-out of the PE solution we look at a retail application. In this installation, common ‘Tegometall’ retail shelves are used, but it is applicable for many other types of shelves. The complete solution of the PE-range is shown in the following image.

Taking a closer look at the different elements that create the PE range solution, we distinguish five groups. Firstly, we have the rails that deliver continuous power to the ESLs.

Secondly, the cables that are used to connect the power supply and de rails together. The third element in the PE solution are the labels themselves.

To interact with different databases and provide the ESLs with content we need the base station. Lastly, we have a few accessories to complete the PE range solution.
The Rails

The first element in the PE solution are the rails. These elements are indicated with red numbers 1 till 4 in the image below and on the next page. These are used to deliver the power from the power supply (7) to the PowerRail Back Kit (2) and the PowerRails (1) on the front of the shelf. The PowerRail Back Kit (2) is used to distribute the power vertically over the ‘Tegometall’. This kit can be magnetically attached to the back of the shelf and consists of two 90cm rails, a bridge unit and two end caps. The power is delivered from the power supply (7) to this PowerRail Back Kit (2).

From the PowerRail Back Kit (2) power is delivered to the front PowerRail (1) via a set of power cables (5 and 6). The ESLs (8 and/or 9) are connected directly onto this front PowerRail. The PowerRail (1) comes in three models: White with self-adhesive tape, grey with self-adhesive tape and grey with a Wanzl clip on the back. Multiple PowerRails can be connected using the Bridge Unit (2). To end a powerrail neatly, you can use an End Cap (4).

The image below shows these PowerRails in the example application. Many other configurations are possible. Contact a local Opticon representative for more information. The next page describes the products with their specifications and article codes.
The Rails

**PowerRail Tape White**
- Mounting: Self adhesive
- Length: 1000 mm
- Width: 25 mm
- Color: White
- Other rails with different mounting options can be produced depending on request.

**PowerRail Tape Grey (Blk)**
- Mounting: Self adhesive
- Length: 1000 mm (3750mm in black)
- Width: 25 mm
- Color: Grey, Black
- Other rails with different mounting options can be produced depending on request.

**PowerRail Wanzl Grey**
- Mounting: Wanzl Clip
- Length: 1000 mm
- Width: 25 mm
- Color: Grey
- Other rails with different mounting options can be produced depending on request.

**PowerRail Back Kit**
- Delivers power from the power supply to the front PowerRail via 14448 and 14387.
- Set consists of:
  - 2x 900 mm magnetic Power Rail Grey
  - 1x Bridge Unit (14390)
  - 2x End Cap (14389)

**PowerRail Bridge Unit**
- Connects two or more PowerRails together.
- Set consists of:
  - 1x Bridge Unit
  - 2x Retaining Screws

**PowerRail End Cap**
- Terminates a PowerRail in a safe a neat manner.
- Set consists of:
  - 1x End Unit
  - 1x Retaining Screw
The Cables and Labels

The second element within the PE solution consists of the required cables. These elements are indicated with blue numbers 5 till 7 in the image below and on the next page. The Power supply delivers (7) the power to the PowerRail Back Kit (2). From there the power is transferred to the front PowerRail (1) with the Connector Cable (6) and Plug for PowerRail (5).

The Connector Cable (6) uses a bayonet style of connector to attach to the PowerRail Back Kit (2). The other end connects (+ + / --) to the Plug for PowerRail (5). This Plug for PowerRail connects to the right side of the PowerRail (1).

Now the PE-152 (8) and/or PE-292 (9) ESLs can be connected to the front PowerRail (1). You attach the ESL’s to the PowerRail by aligning the ESL at an angle of 90 degrees clockwise. Press the notch at the back of the ESL into the rail and rotate 90 degrees counterclockwise (See image to the right for a representation of this action). Now the ESL is aligned with the PowerRail. The ESL gives a visual confirmation when it receives power for the first time.

The image above shows these Cables and ESLs in the example application. Many other configurations are possible. Contact a local Opticon representative for more information. The next page describes the products with their specifications and article codes.
PowerSupply

PowerSupply for PowerRail Back Kit (14503). Do not use directly onto front PowerRail (1). Euro cable (10999) not incl.

Output voltage: 12V
Output current: 8A
Supports: up to 100x PE-292
Color: Black

Plug for PowerRail

Connection cable for PowerRail (Right). Use together with Connector Cable (14448) and Back Kit (14503).

Length: 150 mm
Color: Black

Connector Cable

Connector cable for PowerRail. Use together with Connection Cable (14448) and Back Kit (14503).

Length: 650 mm
Color: Black

Plug Right Male 150mm 14448
Plug Left Female 150mm 14449

Plug Right Male 150mm 14448
Plug Left Female 150mm 14449

Plug Right Male 150mm 14448
Plug Left Female 150mm 14449

Plug Right Male 150mm 14448
Plug Left Female 150mm 14449

Power sup 12V/8A back end rail 14414

The Labels

PE-152

Display: e-paper b/w
Size: 1.5 inch
Pixel pitch: 140 dpi
Power: Over rail
Operating voltage: 5-12V
Radio protocol: IEEE 802.15.4
LED, NFC and sound feedback

PE-152 14302
PE-152 NFC A, B & F 14692
PE-152 BWR * 14739

PE-292

Display: e-paper b/w
Size: 2.9 inch
Number of dots: 296 x 128
Pixel pitch: 111 dpi
Power: Over rail
Operating voltage: 5-12V
Radio protocol: IEEE 802.15.4
LED, NFC and sound feedback

PE-292 14156
PE-292 NFC A, B & F 14690
PE-292 NFC A, B & F * 14739
PE-292 BWR * 14690
PE-292 BWR * 14739
PE-292 Low Temp * 14571

RE-294

Display: e-paper b/w
Size: 2.9 inch
Number of dots: 296 x 128
Pixel pitch: 111 dpi
Power: Over rail & Battery
Operating voltage: 5-12V
Radio protocol: IEEE 802.15.4
LED, NFC and sound feedback

RE-294 14603
RE-294 NFC A, B & F * 14716
The Basestation and Accessories

From small retail to multi-store business, implementation of the Base Station is very simple. All e-paper labels are connected to the same network and content management system, which is connected to the back-office system. One EBS-40 base station can load 2,500 ESLs per station and has a 25-meter indoor radius.

The ESL Server software runs on the Base Station and can be used to provide the ELSs with content. There are different types of solutions that the ESL Server Software will support: CSV-file solution, SQL solution, CSV / SQL hybrid solution, External content management solution and a SQL API. You can download the latest version from www.opticon.com.

Use the EBS Power Supply to provide the Base Station with 6V power. You can use the EBS Ethernet cable to connect the Base Station to your existing network. A demo set of 5 NFC cards with Opticon Print are available. You can program these cards with the NFC Reader.
**EBS PowerSupply**

- **Power Supply**
  - Output voltage: 6.0V
  - Output current: 2.0A
- With swappable power plugs:
  - EU Plug
  - US Plug
  - UK Plug

**EBS Ethernet Cable**

- Ethernet cable to connect the Base Station to an existing network.
- Length: 1000 mm
- Color: Black

**The Accessories**

**ESL Server Software**

There are several different types of solutions that the ESL Server Software will support:

- CSV-file solution
- SQL solution
- CSV / SQL hybrid solution
- External content management solution
- SQL API

**NFC cards**

- 5 cards incl. Opticon Print for testing purposes. Can be programmed with NFC Reader (14388).

**NFC Reader**

- Size: 98.0 x 65.0 x 12.8 mm (lxwh)
- USB 2.0 Full Speed Interface
- CCID Compliance
- Read/write speed up to 424 kbps
- Reading distance of up to 50 mm
- Built-in anti-collision feature
- Supports ISO 14443 Type A and B cards, MIF, FelCa, and all 4 types of NFC (ISO/IEC 18092) tags
- Application Programming Interface: Supports PC/SC, CT-API (through wrapper on top of PC/SC)
- User-controllable LED & Buzzer
- Supports Android OS 3.1 and above

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