

### HF | NFC - Label CCL Faubel - Smart Label

- Battery-free E-Paper Display
- Integrated RFID (13,56 MHz) for data exchange
- IP65 rated
- Dynamic, Flexible Labeling
- Easy System Integration



### HF | NFC - Label Self-powered and durable

The Faubel Logistics Label (FLL) is a battery-free e-paper display with integrated RFID technology, specifically designed for the requirements of intralogistics, inventory management, and returnable container management.

Thanks to its energy-efficient and flexible properties, it provides a sustainable alternative to conventional paper or plastic labels. The label can be written contactlessly via NFC/RFID and only requires power during updates, making it completely maintenance-free.

By integrating with an Label Management Software, the FLL is seamlessly embedded into SAP-supported logistics processes. This allows companies to digitalize their labeling workflows, manage them centrally, and improve data accuracy across the supply chain.

The smart labels are highly durable due to their robust plastic housing and allow digital updating of displayed information at any time. This makes them particularly suitable for returnable containers as well as Kanban or closed-loop processes, offering a time-saving and efficient labeling solution.

### Common Applications

- Logistics and Inventory Management
- Supply Chain and Transportation
- Industrial Production
- Retail and Warehousing
- Asset Management



## TECHNICAL SPECIFICATIONS

### Contactless Interface

|                     |           |
|---------------------|-----------|
| Operating Frequency | 13.56 MHz |
| Supported Standard  | ISO 15693 |
| Transponder Type    | passive   |

### General Characteristics

|                  |                                     |
|------------------|-------------------------------------|
| Power            | Battery-free operation              |
| Read/Write       | Up to 1 million updates             |
| Display color    | Black/White                         |
| Protection Class | IP65                                |
| Housing Types    | Standard, Custom concepts available |
| Operation Temp.  | 0°C to +50°C                        |
| Storage Temp.    | -25°C to +70°C                      |

### Supported Barcodes

|                                                                    |
|--------------------------------------------------------------------|
| 1D Barcode (e.g. GS1-128); 2D Barcode (e.g. QR & Data-Matrix-Code) |
|--------------------------------------------------------------------|

### Display Characteristics

|               |                                                                                                                                              |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Display color | Black / White                                                                                                                                |
| Sizes         | 1,5' / 200 × 200 Pixel / 188 dpi<br>2,7' / 176 × 264 Pixel / 118 dpi<br>2,9' / 128 × 296 Pixel / 112 dpi<br>4,2' / 400 × 300 Pixel / 120 dpi |

### System Integration Options

|                      |          |
|----------------------|----------|
| Smart Printer        | IPP, ZPL |
| Android              | App, SDK |
| Smart Device Service | Yes      |
| OPC-UA Service       | Yes      |