



# PRODUCTS FOR TRAINS

# MAFELEC AND TSL-ESCHA

## CREATING TOGETHER SMART AND SUSTAINABLE INTERFACES

MAFELEC develops control and signaling solutions for harsh environments. From push buttons to switches, from complete control panels to door control solutions, the company offers products that are best suited to the needs of our partners.

TSL stands for Touch, Signal and Light. Door opening push buttons, signal lights, sounders, indicator and display devices as well as LED lighting are part of the product portfolio. TSL-ESCHA develops, manufactures, and distributes individual customer solutions for public transportation.

### Members of the MAFELEC TEAM

TSL-ESCHA based in Halver (Germany) and MAFELEC in Chimilin (France) are part of the MAFELEC TEAM. The owner-managed group of companies offers solutions for HMI, lighting and sensors and is active in the markets of bus and railway, industrial vehicle, industry, energy, defense, aerospace, and elevators.





## **A LARGE OFFER FOR ROLLING STOCK**

### ROBUST SOLUTIONS AND CUSTOMER SUPPORT

MAFELEC and TSL-ESCHA are recognized actors in the railway world for control and signalling solutions. Our products equip the rail vehicles of the largest manufacturers and operators worldwide, meeting European and international railway standards.

In the areas of Human Machine Interfaces (HMI), Detection and Protection, and Interior and Exterior Lighting, MAFELEC TEAM proposes a large range of solutions, suitable for interior or exterior installations. They can be fully adapted to the customer's requirements, taking into account all different kinds of mechanical, electrical or aesthetical constraints.

With a team of over 100 engineers specializing in electrical, electronic, mechanical, optical and thermal engineering, and our extensive knowledge of railway requirements, we are ideally placed to develop innovative, robust and reliable control and signalling solutions.

We are developing new tools in order to help our partners put in place a sustainable predictive maintenance.

The permanent improvement of our production tool and our quality system, certified by IRIS, allows us to guarantee our customers a flawless support for the successful completion of their projects.

# HMI INTERIOR AND EXTERIOR

## DOOR EQUIPMENT

Push Buttons

Handrail Buttons

Indicator Lights

Signal Lights

Door Light Strips

Crew Switches

Sounders



## PASSENGER COMFORT

USB Sockets

Power Sockets

Reading Lights

Spot Lights



## SANITARIES

Push Buttons

Indicator Lights

Sounders



## DRIVER DESK

Push Buttons and Indicators

Rotary Switches

Toggles, Tumblers and Joysticks



## SAFETY SOLUTIONS

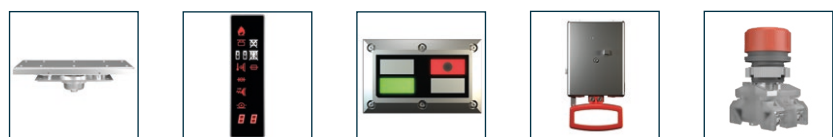
Dead Man Pedals

Signal Boxes

Brake Indicators

Alarm Handles

Emergency Push Buttons



## HMI INTERIOR AND EXTERIOR

- DOOR EQUIPMENT
- PASSENGER COMFORT
- SANITARIES
- DRIVER DESK
- SAFETY SOLUTIONS

## DETECTION &

- VOLTAGE & CURRENT SENSING
- CIRCUIT BREAKERS
- INSULATORS AND BUSHINGS
- POWER SWITCHES



PROTECTION

SENSORS

INGS

## LIGHTING INTERIOR AND EXTERIOR

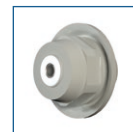
- FRONT LIGHTING
- INTERIOR LIGHTING
- EXTERIOR LIGHT SIGNATURE



# DETECTION & PROTECTION



## VOLTAGE & CURRENT SENSORS



## CIRCUIT BREAKERS



## INSULATORS & BUSHINGS

## POWER SWITCHES

# LIGHTING INTERIOR AND EXTERIOR

## FRONT LIGHTING



## INTERIOR LIGHTING

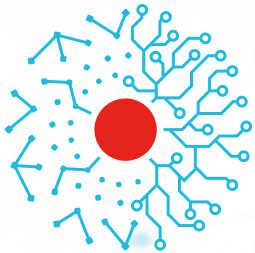
Ceiling Lighting

LED Lights



More detailed information of our products can be found on our websites:  
[www.mafelec.com](http://www.mafelec.com) and [www.tsl-escha.com](http://www.tsl-escha.com)





# MAFELEC TEAM

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SUSTAINABLE INTERFACES



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## MEMBERS OF THE MAFELEC TEAM

