



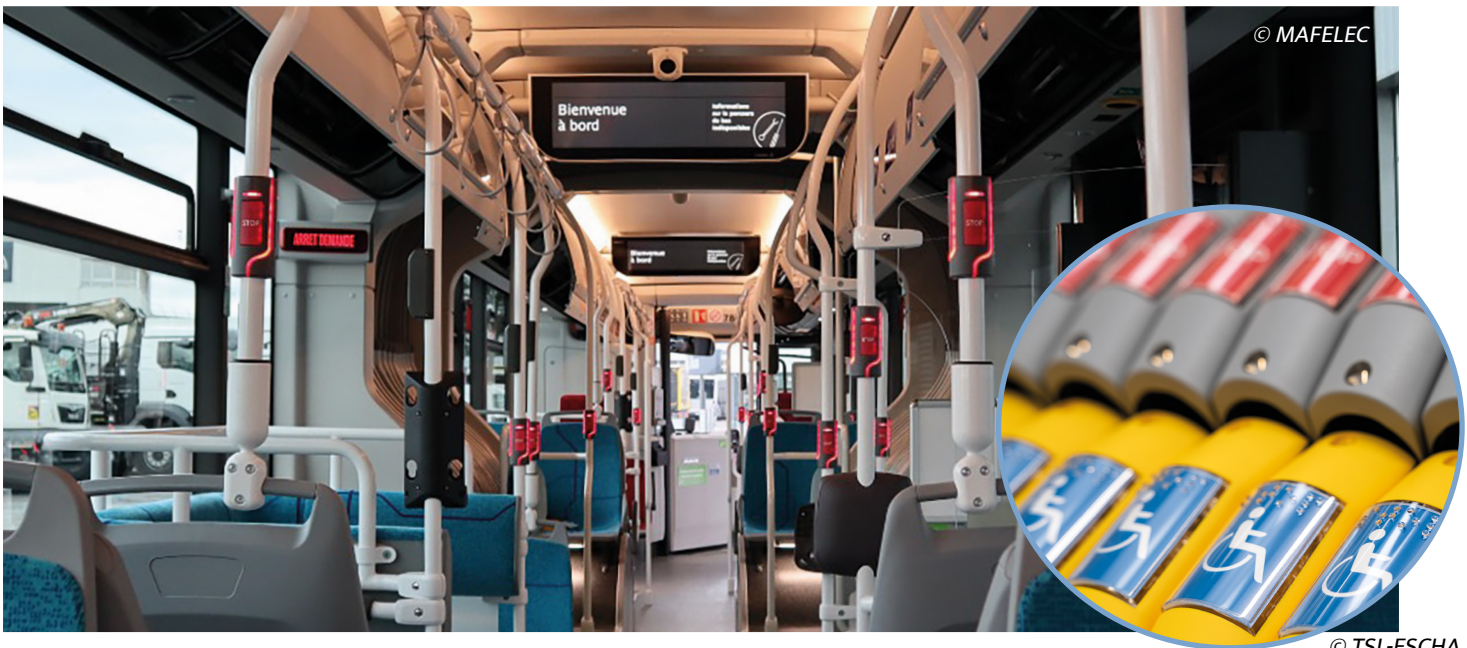
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# TSL-ESCHA

## Handrail Buttons from TSL-ESCHA and MAFELEC

Rich in Variety and Robust



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TSL-ESCHA and MAFELEC offer a variety of handrail buttons. These are especially used in buses and trams. From simple stop request buttons up to backlit displays – these product families are very versatile.

### NEW Handrail Buttons with Acoustic Feedback from TSL-ESCHA

All over the world, TSL products are installed on buses and trams. Since 2004, the HST series handrail buttons have also been onboard. Due to new customer requirements and the resulting further developments, the products are always evolving to keep up with the times.

The latest development is a variant with additional acoustic feedback. The HSTIA (the 'A' stands for

acoustic) was developed with a ceramic loudspeaker for a customer project in Poland. The aim here is to provide passengers with more safety through additional acoustic feedback when the pushbutton is actuated.

Having already launched the HSTIV in 2019, a handrail button with haptic feedback through vibration, we have once again succeeded in developing a passenger-friendly solution that is readily available, easy to install, and cost-effective at the same time.

The additional illumination also helps passengers with impaired hearing identify the actuation by the colour change of the LEDs.



## Long Lifespan

The big plus of the HST series is their long-term protection and long service life thanks to a sturdy housing and compact design. TSL-ESCHA is known in the market for realising many special customer requests. These include not only the new development of the HSTIA with its acoustic feedback, but also, for example, an additional contact protection against unintentional actuation.

TSL develops, manufactures and sells customised solutions. Thus, one million handrail push buttons sold is another milestone in the 35-year company history of TSL-ESCHA, of which the employees are very proud.

### Highlights:

- Optional equipment with a ceramic loudspeaker for the HSTI variants
- Letter A (for acoustic) indicates this in the product name
- Acoustic feedback starts for a short time when the touch surface is pressed, so that additional feedback is heard
- More comfort and safety for visually impaired persons

## Stop Request Button M-360 from MAFELEC

The M-360 is a triple push button with an innovative and elegant design that is mounted on the handrail or interior walls of all transportation vehicles requiring stop request command (buses, trolleys, trams).

The stop request function is fully accessible to all passengers (including PRM), whatever their position in the vehicle, thanks to its three large actuation

and lighting zones visible at 360 degrees in the pole mounted version.

The great haptic feedback (click effect) associated with the change of lighting colour/area of all the buttons installed in the vehicle confirms that the request has been taken into account.

## Mounting Forms and Variants

The M-360 is available in two types of mounting: on poles and on walls. It is delivered as a kit with its installation instructions, allowing quick and easy installation. A pole drilling gauge is available to ensure a perfect assembly of buttons in case of drilling operation directly in the vehicle (refurbishment for example).

With no visible screws thanks to its clip-on bezel, the M-360 is protected against vandalism. But it can be easily disassembled without special tools by a trained operator using the replacement instructions.

The M-Safe variants of antimicrobial actuator protection and touchless activation will be available in the near future to meet the growing need for enhanced hygienic security.

### Highlights:

- Contemporary innovative design
- 360-degree functionality: three actuators/backlit areas
- Surrounding ultra slim design: 8.5mm thickness
- Invisible fixing elements
- Visual feedback detectable for colour-blind people
- Lit areas visible in daylight
- Fully customisable: colours, marking and lighting
- M-Safe options coming soon



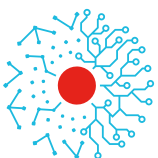
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Claudia Dix, Head of  
Marketing



Scan the QR code to contact  
Romain Duchene, Product  
Manager



## Hand Rail Buttons



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