



TSL-ESCHA

TSL-ESCHA's Push Button Variety for Buses



Illuminated handrail button

When using public transport, it is important for people with reduced mobility to be able to locate and operate products quickly.

Travel by bus should be easy, safe and comfortable for every passenger. A door-opening push button must function just as reliably in extreme heat with dust as in high humidity or icy temperatures. In addition to functional reliability, TSL-ESCHA and MAFELEC place a great deal of importance on passenger comfort.

Passengers with reduced mobility should be able to recognise and operate the products easily. The push buttons, signal devices and LED lighting comply with the recommendations of the associations and meet the legal requirements.

To ensure that boarding and alighting can proceed smoothly during passenger changes, operating elements such as door opening push buttons need to be recognisable at glance. The aim is to ensure that passengers, in particular those with visual impairments, have access to public transport that is as barrier-free as possible.

The coloured pictograms on the TSL-ESCHA push buttons are mounted behind a transparent cover that is resistant to UV light. As a result, the colours remain unchanged and the pictograms are protected from wear and dirt. In addition, TSL-ESCHA uses a coating process to apply the colours to the covers, providing long-term protection. Plastic components made of coloured plastics cannot guarantee this in the long term. This means that operating elements are always clearly visible.



Similarly, TSL's door controls are not only identifiable by touch according to TSI-PRM, but also give visually impaired people additional haptic recognition options such as braille. TSL-ESCHA takes great care to ensure that the push buttons, warning sounders and signal lights provide added value for passengers. Large touch surfaces, optimum brightness of the LEDs, braille and acoustic warning and information signals make it easier for hearing and visually impaired and mobility-impaired passengers in particular to participate in public transport life.

Product Feature for Stop-Request Button

TSL-ESCHA and MAFELEC develop, manufacture and distribute customised solutions. For example, for a customer project in Scandinavia, TSL developed a stop-request button with vibration feedback, as no comparable solution existed. The vibration feedback starts for a short time when the button is pressed, so that additional feedback is felt. This function is intended to provide more comfort and safety, especially for visually impaired passengers. It is extremely important for TSL-ESCHA and MAFELEC to be at the forefront of new developments and new requirements in order to give people with reduced mobility the best and safest feeling when travelling by bus.

The HSTIV (illuminated handrail button with vibration) is also optionally available with two-colour illumination. The colour green provides better localisation of the push button on the handrail. The colour red provides a visual acknowledgement of the stop request after pressing the push button. This assures the passenger that his or her stop request has been accepted, especially in fully occupied vehicles when the 'carriage stop signal' cannot be recognised.

M-360 – 360° Accessible and Elegant

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

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 commands (buses, trolleys, trams). Accessibility to the stop-request function is total for all passengers, 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 haptic feedback (click effect) associated with the change of lighting colour of all the buttons installed in the vehicle confirms that the request has been received.

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

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HAND RAIL BUTTONS



MAFELEC TEAM

CREATING SMART AND
SUSTAINABLE INTERFACES

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