



TSL-ESCHA

Continuous Development for More Passenger Comfort



The CK push button has been used successfully for years in many vehicles worldwide (above). The new CK touchless version (right) for hygienic, touchless use will be presented at InnoTrans.

InnoTrans is the leading international trade fair for transport technology and after a break of four years due to Covid-19 TSL-ESCHA will show some new products and developments.

The focus of the products of TSL-ESCHA is on simple, intuitive operation and clear recognition in order to make bus and train travel uncomplicated and safe,

especially for people with reduced mobility. The products were developed according to the market requirements of the transport companies and the needs of passengers.

In more than 35 years of developing and manufacturing push buttons, TSL-ESCHA has gained a lot of experience. Great importance is also attached to the continuous further development of the products in order to always keep up with the times. At InnoTrans this month

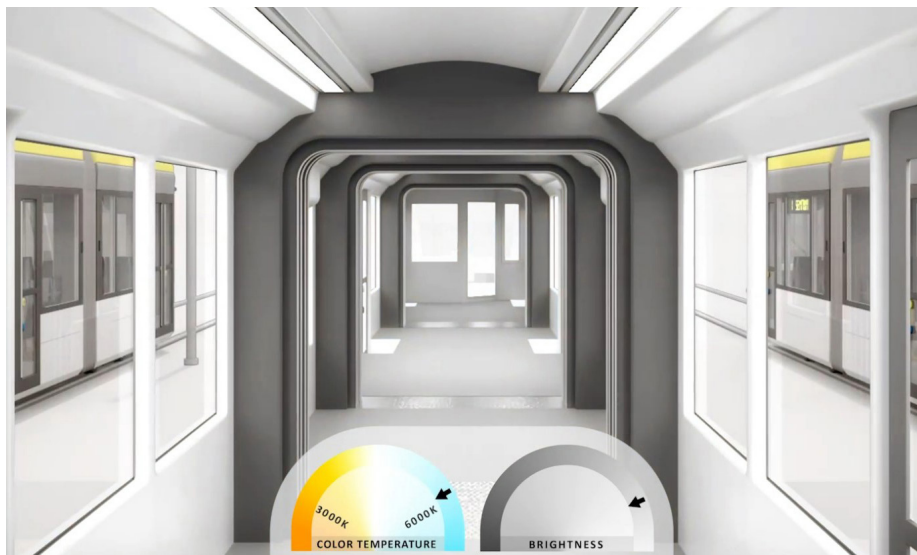
for example, the company will be presenting a new touchless version of the proven CK push button. An interesting solution, especially in times of Covid-19. The CK touchless is activated by the approach of the hand via a sensor. This is the first joint project between TSL-ESCHA and MAFELEC. Since November 2021, TSL has been part of the MAFELEC TEAM, a French group of companies. The same technology is already integrated in MAFELEC's M-Door GM push button. The CK touchless is the only push button

on the railway market with a two-in-one solution. On the one hand, the door can be opened contactlessly via the sensor. On the other hand, the passenger still has the possibility to perform the door opening process via the tactile touch surface.

The PK push button, which has been established on the market since the 1980s, has also undergone further development. The facelift with a new front ring without visible screws gives the PK a more modern appearance. The push button is mounted from the front as usual and the new front ring is then put on. No special tool is needed for disassembly, a simple screwdriver can be used to loosen the front ring again. The product is adapted to the very latest requirements and standards and complies with IP67 front and rear.

New Variants and Concepts for Signal Lights and Ceiling Lighting

The LED light strips of the LS series developed in 2016 have been a great success. TSL pioneered the light strips in the movable door element, which noticeably mark the opening and closing process. In the meantime, there are different variants of the LS series, which are oriented to different installation situations. All over the world, the light strips now ensure greater safety in the door area of trains. Until now, the light strips from the LS Pro-Line series could be controlled and adjusted in brightness and luminous colour using a special control and power supply unit (PCU) (voltage range



The linear lights can be individually adapted to any customer requirement in terms of colour temperature and brightness

of 24VDC \pm 30 percent). In order to offer customers even more options, TSL-ESCHA has now developed a variant in which the lights strips can be controlled directly by the door control unit. The new LS Basic-Line is designed for a voltage range of 24VDC \pm 10 percent. The direct control via the existing door control unit reduces the installation effort for the customer and also saves space in the installation area. All in all, a cost-effective solution.

With the SLE161 and SLE162, TSL-ESCHA has launched a new generation of LED signal lights. Due to the extremely flat, compact design (only 15mm high), the signal lights are versatile. The rounded design of the housing ensures optimum visibility, as the warning signal can be seen excellently from different perspectives.

The SLE161 (with 10 LEDs) is the successor to the previous SLE160. As with the SLE160, a lateral reflector can be selected for even better lateral visibility. In appearance, the SLE161 differs insignificantly from the previous model. The SLE162 (with 20 LEDs) provides an even

more uniform and homogeneous illumination. It is also possible to use 2 x 20 LEDs with two colours (red / green or red / white) to indicate different states. A white cover is then used for this purpose.

With the new LL series, TSL-ESCHA now offers a universal, innovative and intelligent lighting concept for ceiling illumination in trains. It will be shown to the public for the first time at InnoTrans. Fixed light colours or colours adapted to the respective situation from warm white to cold white light (from 3,000K to 6,500K) can be realised. A homogeneous light without transitions can be achieved over the entire length of the vehicle with the LL series.

Whether push buttons, light strips, LED signal lights or ceiling lighting – passenger comfort is constantly being enhanced through further development of the products.

Come and see it in person and visit us at our booth at InnoTrans (**Hall 27, Booth 480**). Together with MAFELEC we show a wide range of products.

New Linear Light Series LL



20 - 23 September
Hall 27, Booth 480

