















**Public Transport and Industry** 

# OUR PRODUC AT A GLANCE

#### DOOR OPENING BUTTONS







Door Opening Buttons for Bus and Train Interiors and Exteriors

Product	MP	PK	CK	PK52
* Characteristics according to product type			•	
Features				
Durability (7 million switching cycles)	х	х	X	х
Protection level IP67 (front)	×	×	X	х
Various assembly options	X	X	X	Х
Robust and compact housing	х	х	X	Х
Vibration resistant	X	X	×	х
Wear-free switching	×	×		
Cleaning chemicals resistant	×	×	×	Х
Customizable light signal		X	×	X
Customizable sound signal				Х
Flat housing design			X	
High quality stainless steel			X	X
Theft security with invisible mounting components	X	Х	X	X
Large assortment	X	X	X	X
Suitable for extreme conditions	X	X	X	X
In compliance with TSI standards	X	X	X	X
Customized product features upon request	X	X	X	Х
User				
Highest visibility for commuters				Х
Tactile switching			×	Х
Effortless activation (15N)	X	х	Х	Х
Reliable functionality	×	х	Х	Х
Lateral visibility of LEDs				х
Vandalism proof	×	х	Х	Х
Large active touch surface			X	Х
Designed for people with reduced mobility		Х	X	Х

### HAND RAIL BUTTONS





Handrail Buttons for Buses and Trains

Product	HST35	TSG101	TSG108
* Characteristics according to product type	and a	Male Male Male Male Male Male Male Male	
Features			
Durability (500,000 switching cycles)	х	Х	Х
Assorted colors	×	X	×
Easy installation	X	X	×
Long lasting LEDs		X	×
Protection level IP40	X		
Protection level IP54		Х	×
Customized pictographs	X	Х	×
Customized text message		Х	
Slooped panel for better visibility			×
Robust and compact metal housing		Х	X
Easy to clean acrilic glass cover		X	×
Customized front plate		X	×
Assorted button colors		X	X
Assorted ring button colors		X	X
Assorted LED colors		X	X
User			
User-friendly	X	Х	Х
Vandalism resistant		X	×
Effortless activation	×	X	X
High visibility of symbols thanks to backlit display		X	X
Raised tactile surface	Х	Х	Х
Tactile surface with Braille (two language EN/DE available)	X	х	х
large touch surface	х		
Designed for people with reduced mobility	X	X	×

### SIGNAL DEVICES







Signal Lights for Wagon Hallways and Lavatories

Product	ML52	PKM	PKF	PKM52
* Characteristics according to product type	We		•	Ausser Betrieb
Features				
Robust and Durable	х	Х	Х	Х
Protection level IP67 (front) frontseitig	X	Х	х	X
Graffiti remover-resistant optional	x	X	X	X
Several mounting options	х	Х	Х	
Assorted pictographs	x	X		X
Assorted signal tones	x	X		
Double-sided display		X		
Assorted LED colors	x	х		
Customized texts	×	Х		X
Remotely controlled	Х			Х
Signal tone parallel with blink function	х			
User				
Vandalism resistant	х	Х	×	Х

#### Warning Panels





Audible Warning Panels for Bus and Train Interiors and Exteriors

Product	WM87	PKW21	WM28
* Characteristics according to product type	0		
Features			
Up to 8 different tones and melodies	x	х	
Red and green LEDs			x
Customized solutions upon request	х	Х	x
Adjustable parameters of signal types, frequencies, and sound level at device location	X		
Warning signal in different sounds, pitch, lengths	x	x	
Large pictograph options			×
compact, robust, tight	Х	Х	x
Different mounting options	X	X	Х
User			
Automatic volume adjustment	X		
Individually programmed	X		
Resistant to cleaning chemicals, vandalism, and other environmental conditions	Х	х	X
Extremely flat surface	X		
Fast assembly	Х	X	Х
Multi tone signals possible	Х	X	

### LED LIGHTS







LED lights for Public Transportation | Assembly and Quality Control Desks | Machining Centers

Product	ROUND LIGHTS	LINEAR LIGHTS	MINI- ATURE LIGHTS	PANEL LIGHTS	SWAN NECK LIGHTS	BUILT-IN LIGHTS	light systems
* Characteristics according to product type		E24.2013	NA PAR			<b>3</b>	12
Features							
Intelligent temperature management	×		Х		Х	X	
Up to 50,000 operating hours	X	X	X	Х	X	×	×
Protection level IP67	x	X	Х		Х	×	
Quick and easy installation	X	X	X	Х	X	×	×
Various mounting options	×	Х	Х	Х	Х	X	×
Suitable for potentially explosive areas zones 2 and 22	×						
Additional protective glass	×	X			Х		
24 V <sub>DC</sub>	X	X	X		X	×	
230 V <sub>AC</sub>	x	Х		Х	Х		×
110 V <sub>DC</sub>						×	
User							
Energy saving and environmental friendly	x	Х	X	Х	X	X	Х
Coolants resistant	×	X	×		Х		
Adjustable brightness				Х			×
Adjustable light color (warm white - cool white)				×			×
Glare-free light				Х			×
No shadow				х			Х
Space-saving design			х	х		×	Х
Robust housing	×	×	×		X	×	

### SIGNAL LIGHTS





Signal Lights for Special Vehicles, Buses and Rail Vehicles

Product	TL80	SLE150	SLE160	SLE63	SLK63
* Characteristics according to product type					
Features					
Robust and Durable	×	х	×	×	×
Protection level IP67	×	×	×	×	×
Assorted LED colors	×	×	×	×	×
Several mounting options	×		×	×	X
Up to 50,000 working hours	×	X	×	×	X
Quick and easy installation	×	×	×	×	×
24 V <sub>DC</sub>	×	×	×	×	×
110 V <sub>DC</sub>	х	Х	×	×	×
User					
Alert signal funtion	×	×	X	×	×
Vadalism resistant	×	×	×	×	×
Lateral visibility		×	X	X	X
Energy efficient	×	×	×	×	×
Space saving design	×	X	X	×	X
Robust housing technology	×	Х	×	×	×



## OUR PRODUCTS AID THE HUMAN SENSES IN DAILY LIFE!

#### TSL-ESCHA - World wide used technology for more than 30 years

TSL-ESCHA GmbH is a partner of the international TURCK Group. TSL is global market leader of signal buttons and signal lighting in the public transportation area. Some product families were first introduced in the market back in the mid-eighties. TSL-ESCHA has developed a successful concept "Signaling with LED's" initially LED lights for trains and emergency vehicles and since several years ago robust LED solutions for industrial applications.

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