



TSL - Trust Your Senses to a Proven Partner



PRESSKEY



Opening Button Presskey Series

GET CREATIVE
DESIGN YOUR OWN BUTTON



CONTENT

Highlights	5
Construction types	6-9
Ring cover and insert	11
Pictographs	12-14
Tactile activation surface	15
Light and sound signals	17
Configuration examples	18-19
Connectivity	20-21
Additional connectors and technical data	23

The Presskey tactile push buttons are designed for road and rail vehicles. Thanks to their highly advanced characteristics, they are suitable for outdoor applications and thus proven under extreme environmental conditions such as frost, heat, dirt, and humidity. They are not only tested for frequent temperature changes but also resistant to cleaning chemicals.

The button family Presskey with a patented switching principle meets strict electrical and mechanical requirements. The integrated air-pressure compensation system in a one-piece button housing with four-point contact stands for: reliability, anti-self-triggering weather related, temperature independent functionality, consistent low operating force, anti-blocking of switching element, shock resistance, safety operation, durability and low maintenance.

The combination of different switching functions, tactile surfaces, mounting rings, and a large choice of LED colors and pictographs makes the Presskey Button Series the most versatile push button family of TSL-ESCHA. The PK has been used on busses, trams, subways, and high speed trains for more than two decades.



The microcontroller electronics of Presskey buttons offers a high number of functions easy to carry out. Functions include optical and acoustic signaling such as flashing and sound sequences.

BUTTONS FOR STRICT REQUIREMENTS



ROBUST



Frost-resistant



Dustproof



Protection level IP67



Wear proof



Maintenance-free

INTERCHANGEABLE



Raised symbols
TSI PRM approved



Adjustable
sound signals



Adjustable
light signals



Additional options

Resistant to cleaning chemicals

HIGHLIGHTS AT A GLANCE

CONFIGURATION

CONSTRUCTION TYPES

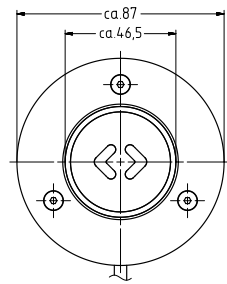
To take advantage most effectively of our product features, the housing of the Presskey series is available in several designs:



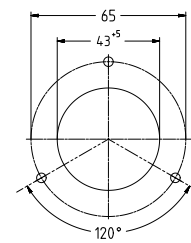
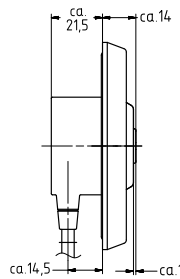
Visible screws

CONSTRUCTION TYPE 1

Function: 1-sided
 Description: Front-sided assembly with standard mounting ring and visible screws
 Applications: Wall or boarding door



Ø 65 mm hole-circle



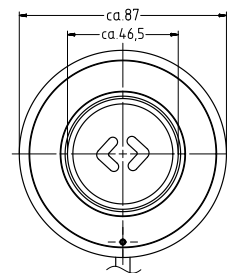
Orientation of the drilling pattern also available as V-variant



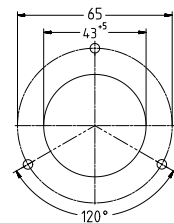
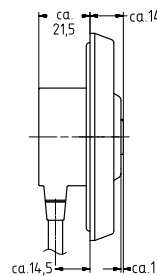
Visible screws

CONSTRUCTION TYPE 2

Function: 1-sided
 Description: Front-sided assembly with standard mounting ring and additional ring insert with or without raised Braille to cover the screws
 Applications: Wall or boarding door



Ø 65 mm hole-circle



Orientation of the drilling pattern also available as V-variant

Configuration Status "Construction and Mounting Types"





CONSTRUCTION TYPE 3

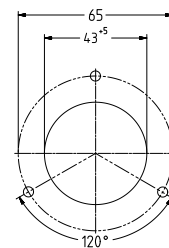
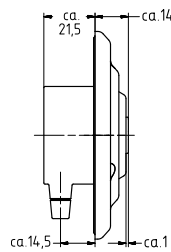
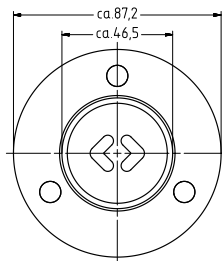
Function: 1-sided

Description: Front-sided assembly with standard mounting ring and additional ring insert with or without raised Braille to cover the screws

Applications: Wall or boarding door



Visible screws
Ø65mm hole-circle



Orientation of the drilling pattern also available as V-variant

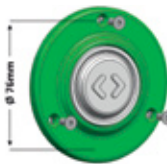


CONSTRUCTION TYPE 4

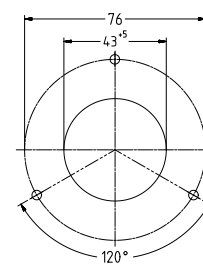
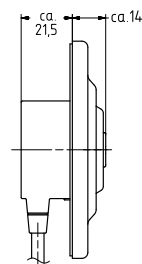
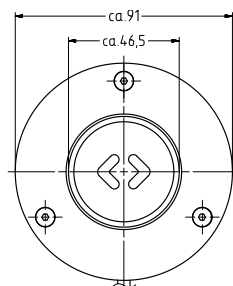
Function: 1-sided

Description: Front-sided assembly with Ø 76 mm hole-circle with visible screws

Applications: Wall or boarding door



Ø 76 mm hole-circle



Orientation of the drilling pattern also available as V-variant

IT'S ALL ABOUT
THE DETAILS

CONFIGURATION

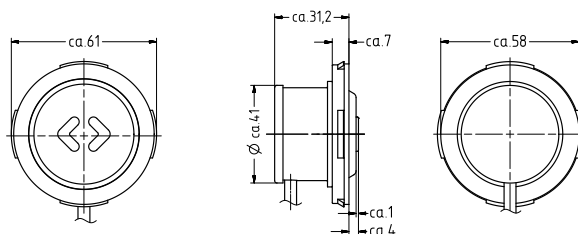


CONSTRUCTION TYPE 5

Function: 1-sided
 Description: Front-sided assembly with Zentraflex attachment, screwsless flush-mounted installation
 Applications: Wall or boarding door

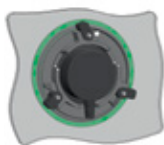


PKZ Inner wall installation

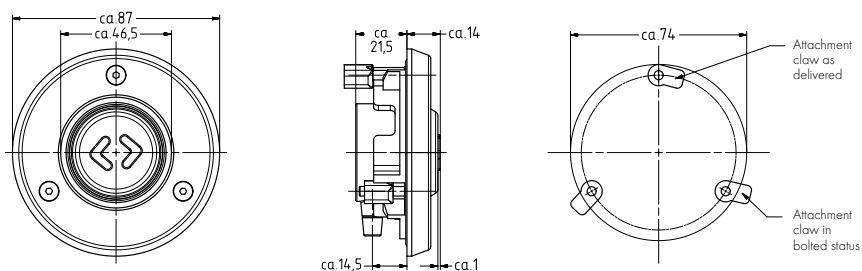


CONSTRUCTION TYPE 6

Function: 1-sided
 Description: Front-sided assembly with $\varnothing 74$ mm hole-circle and rear mounting with fixing claws
 Applications: Emergency unlocking mounting panel



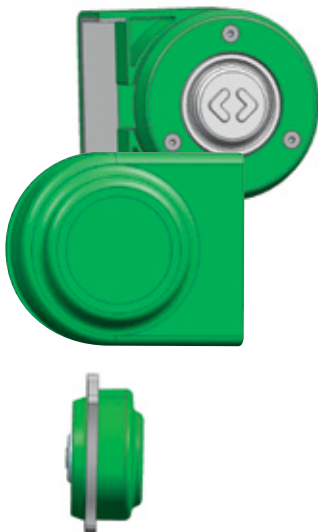
PK Inner wall installation with fixing claws



Orientation of the drilling pattern also available as V-variant

Configuration Status "Construction and Mounting Types"



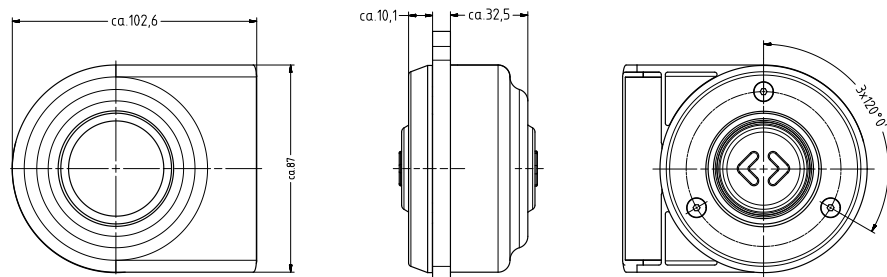


PK Mounting on glass door

CONSTRUCTION TYPE 7

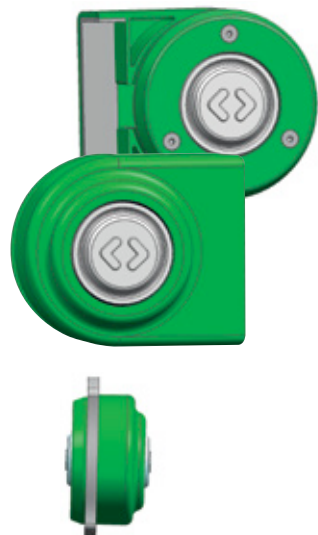
Function: 1-sided
 Description: Glass door mounting. Rear button installation with rear housing cover
 Applications: Glass door

Adaptation to different door profiles possible, available 0°, 10° and 25°



Glass door min. 3 - max. 6

Orientation of the drilling pattern also available as V-variant

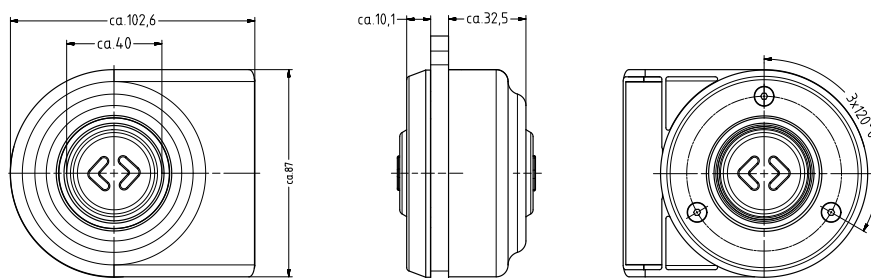


PK Mounting on glass door

CONSTRUCTION TYPE 8

Function: Double-sided
 Description: Front button installation with housing cover for glass door
 Applications: Glass door

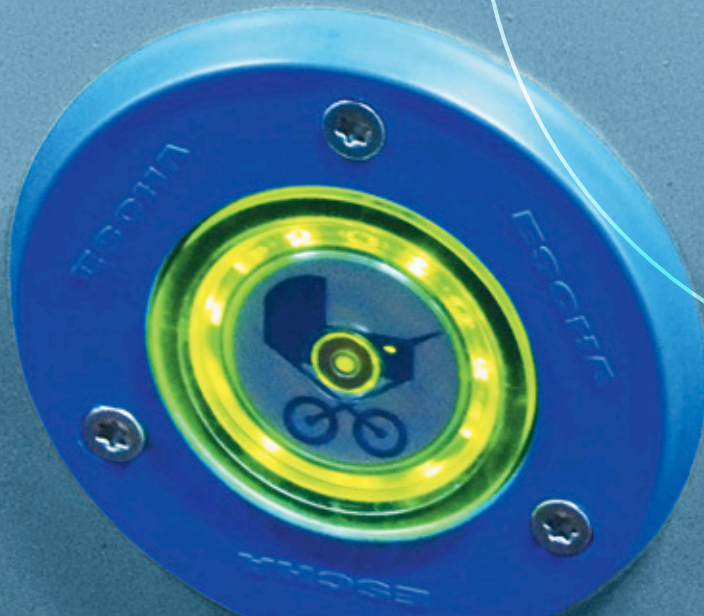
Adaptation to different door profiles possible, available 0°, 10° and 25°



Glass door min. 3 - max. 6

Orientation of the drilling pattern also available as V-variant

IT'S ALL ABOUT
THE DETAILS



RING COVER AND INSERT



RING COVER CONSTRUCTION TYPE 2 AND 8

The ring cover which hides the mounting screws can be additionally customized. There are several colors and texts available and optionally Braille writing.



INSERTS

An insert can be added to the housing model 8. There are several colors and texts available and optionally Braille writing.



RING COVER AND INSERT COLORS

Custom colors available upon request (with an additional cost fee and minimum order of 100pc).

-  similar green RAL6024
-  similar blue RAL5017
-  similar red RAL3020
-  similar yellow RAL1023
-  similar gray RAL7042
-  similar white RAL9016

BRAILLE FOR RING COVER AND INSERT

We offer the option of Braille writing. Text can be customized.

halt	⠠⠠⠠⠠⠠⠠	acces	⠠⠠⠠⠠⠠⠠
open	⠠⠠⠠⠠⠠⠠	izlaz	⠠⠠⠠⠠⠠⠠
rampe	⠠⠠⠠⠠⠠⠠	öppna	⠠⠠⠠⠠⠠⠠
stop	⠠⠠⠠⠠⠠⠠	nyit	⠠⠠⠠⠠⠠⠠

Configuration Status "Ring Cover and Insert"



RAL colors are only for reference. Slight color deviations are inevitable in the manufacturing process.

TAKING SHAPE

CONFIGURATION

PICTOGRAPHS

For information and guidance, we present the most commonly used variants. (Further variations available upon request)



B1
Silver background
Blue symbol similar RAL 5017



B11
Yellow background similar RAL 1023
Black symbol similar RAL 9017



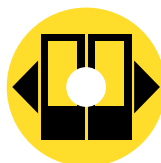
B2
Blue background similar RAL 5017
White symbol similar RAL 9016



B12
Red background similar RAL 3020
White symbol similar RAL 9016



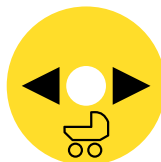
B4
Silver background
Blue symbol similar RAL 5017



B13
Yellow background similar RAL 1023
Black symbol similar RAL 9017



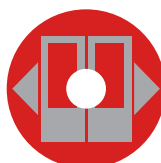
B5
Blue background similar RAL 5017
Silver symbol



B14
Yellow background similar RAL 1023
Black symbol similar RAL 9017



B7
Red background similar RAL 3020
Silver symbol



B16
Red background similar RAL 3020
Silver symbol

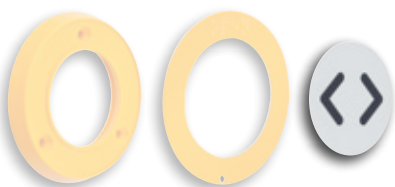


B10
Yellow background similar RAL 1023
Black symbol similar RAL 9017



B18
Yellow background similar RAL 1023
Black symbol similar RAL 9017

Configuration Status "Pictographs"



RAL colors are only for reference. Slight color deviations are inevitable in the manufacturing process.



B19
Silver background
Green symbol similar RAL 6024



B30
Silver background
Green symbol similar RAL 6024



B21
Yellow background similar RAL 1023
Black symbol similar RAL 9017



B31
Green background similar RAL 6024
White symbol similar RAL 9016



B23
Blue background similar RAL 5017
White symbol similar RAL 9016



B33
Green background similar RAL 6024
Silver symbol



B24
Green background similar RAL 6024
White symbol similar RAL 9016



B35
Green background similar RAL 6024
Silver symbol



B25
Silver background
Black symbol similar RAL 9004



B36
Green background similar RAL 6024
White symbol similar RAL 9016



B29
Silver background
Black symbol similar RAL 9017



B37
Red background similar RAL 3020
White symbol similar RAL 9016

STRAIGHTFORWARD

CONFIGURATION



B42
Green background similar RAL 6024
Black symbol similar RAL 9004



B69
Silver background
Black symbol similar RAL 9017



B43
Red background similar RAL 3020
Black symbol similar RAL 9004



B75
Blue background similar RAL 5017
White symbol similar RAL 9016
Raised arrows on surface



B49
Silver background
White symbol similar RAL 9016



B79
Yellow background similar RAL 1023
Black symbol similar RAL 9017



B52
Blue background similar RAL 5017
White symbol similar RAL 9016



B86
Red background similar RAL 3020
White symbol similar RAL 9016

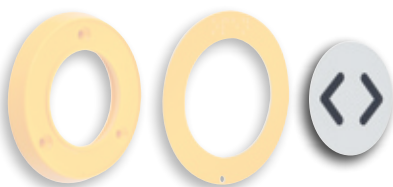


B54
Red background similar RAL 3020
Silver symbol



B55
Green background similar RAL 6024
Silver symbol

Configuration Status "Pictographs"



RAL colors are only for reference. Slight color deviations are inevitable in the manufacturing process.

TACTILE ACTIVATION SURFACE

The modular design of the PK pictographs and tactile activation surface can be customized. The tactile symbols are subtly raised and in full compliance with EN14752 and TSI-PRM.



Touch surface with discreet elevation without tactile symbol



Touch surface with discreet elevation with tactile symbol (open arrows)

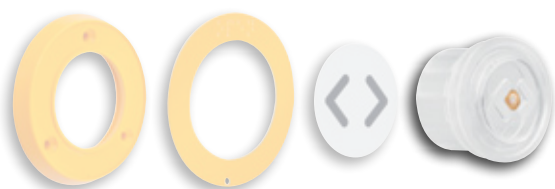


Touch surface with discreet elevation with tactile symbol (close arrows)



Touch surface in flat design

Configuration Status "Tactile Symbols"

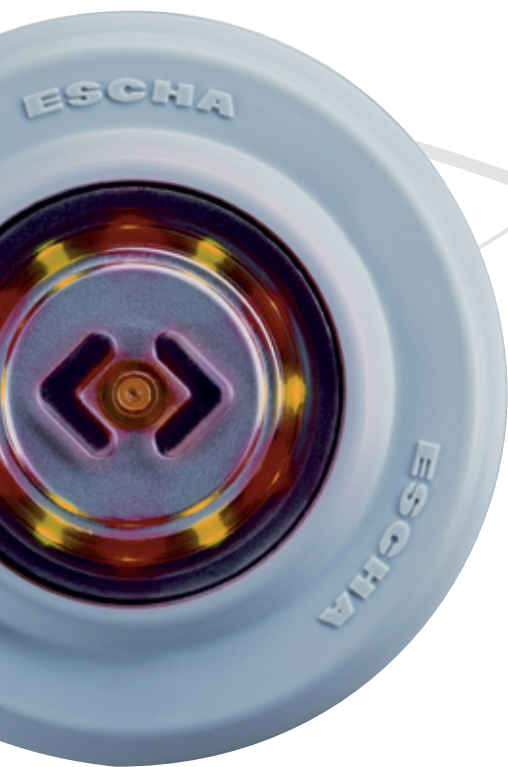


FEEL THE INFORMATION

CONFIGURATION

In the following pages, examples of light and sound are presented. The different light and sound signals are triggered by the button in different operating conditions.

It is possible to trigger all functions directly on the button or by an external control. Therefore, the Presskey series has three inputs (In1, In2 and In3). With this feature, it is possible to manage functions on demand, for example door out of order, turned-off sound at night, etc.



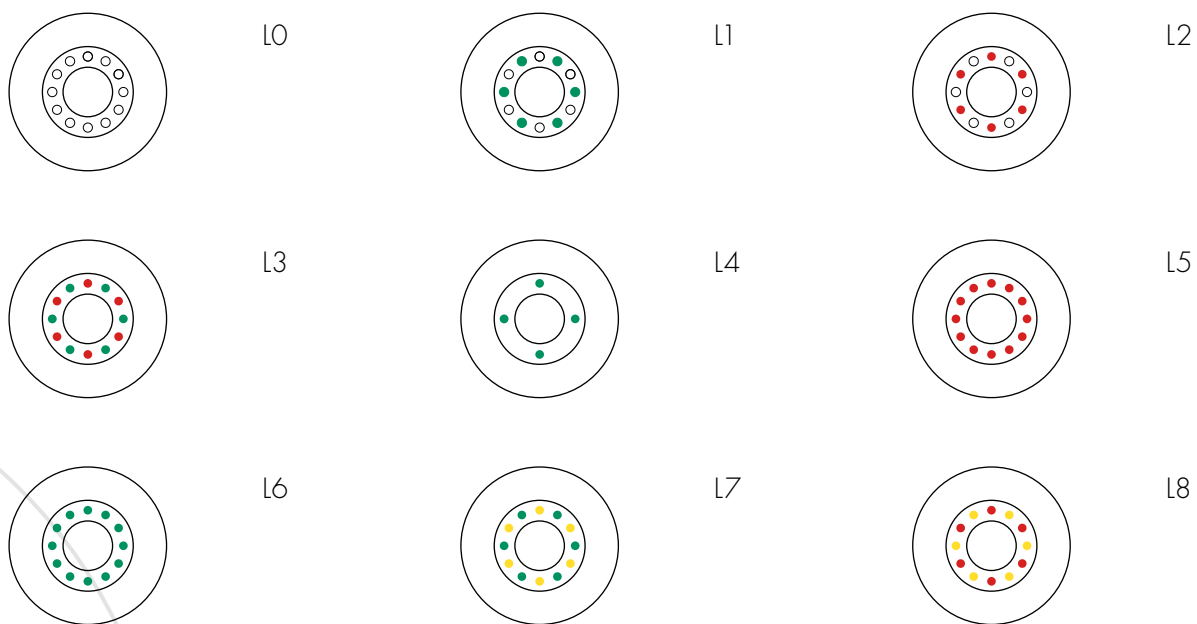
The possibilities are as diverse as the customer requirements for different applications. The combination of light, sound, and input signals are individually determined as well as the desired functionality of the output (Out).

The following tables give a general impression of the possibilities of Presskey series. Each table stands for an individually programmed button and describes the light and sound of each operating condition.

LIGHT AND SOUND SIGNALS

The Presskey offers a wide variety of light and sound signals. In the following table there is a selection of standard versions. Other variations are available upon request.

LIGHT SIGNALS



SOUND SIGNALS

The maximum sound pressure of the PK is 53dBA at one meter distance.

	A0	A1	A2	A3
Tone frequency:	-	3.5 kHz	3.8 kHz	3.5 kHz
Tone length:	-	0.5 sec.	0.05 sec.	Unlimited
Interval:	-	1-times	0.5 Hz	-
Description:	-	Confirmation	Orientation	Prolonged

Configuration Status "Light Signals"



SEE AND HEAR THE BUTTON

CONFIGURATION

CONFIGURATION EXAMPLES

PROGRAM B 30

INPUT				ENABLE			ACTIVATED			DESCRIPTION
IN 1	IN 2	IN 3	UB	LED	ZONE	OUT	LED	ZONE	OUT	
0	0	0	0	L0	A0	-	L0	A0	-	<ul style="list-style-type: none"> · 6 green and 6 red LEDs · 6 connection cables · Button activation with UB · Green LEDs are connected via PLC In1 · Red LEDs are connected via PLC In2 · Audio signals are connected via PLC In 3
1	1	0	1	L3	A0	-	L3	A0	on	
1	1	1	1	L3	A3	-	L3	A3	on	
0	0	0	1	L0	A0	-	L0	A0	on	
0	0	1	0	L0	A0	-	L0	A0	-	
0	0	1	1	L0	A3	-	L0	A3	on	
0	1	0	0	L0	A0	-	L0	A0	-	
0	1	0	1	L2	A0	-	L2	A0	on	
0	1	1	0	L0	A0	-	L0	A0	-	
0	1	1	1	L2	A3	-	L2	A3	on	
1	0	0	0	L1	A0	-	L1	A0	on	
1	0	0	1	L1	A0	-	L1	A0	on	
1	0	1	0	L1	A3	-	L1	A3	on	
1	0	1	1	L1	A3	-	L1	A3	on	
1	1	0	0	L3	A0	-	L3	A0	on	
1	1	1	0	L3	A3	-	L3	A3	on	

PROGRAM B 33

INPUT				ENABLE			ACTIVATED			DESCRIPTION
IN 1	IN 2	IN 3	UB	LED	ZONE	OUT	LED	ZONE	OUT	
-	-	-	0	L0	A0	-	L0	A0	-	<ul style="list-style-type: none"> · 6 green and 6 red LEDs · 3 connection cables · Button activation with UB · LEDs are internally wired
-	-	-	1	L1	A0	-	L3	A0	on	

PROGRAM B 34

INPUT				ENABLE			ACTIVATED			DESCRIPTION
IN 1	IN 2	IN 3	UB	LED	ZONE	OUT	LED	ZONE	OUT	
-	-	-	0	L0	A0	-	L0	A0	-	<ul style="list-style-type: none"> · 6 green and 6 red LEDs · 3 connection cables · Button activation with UB · LEDs are internally wired · Audio signals are internally wired
-	-	-	1	L1	A0	-	L3	A1	on	

PROGRAM B 04

INPUT				ENABLE			ACTIVATED			DESCRIPTION
IN 1	IN 2	IN 3	UB	LED	tone	OUT	LED	tone	OUT	
0	0	-	0	L0	A0	-	L0	A0	-	<ul style="list-style-type: none"> · 6 green and 6 red LEDs · 5 connection cables · Button activation with UB · Green LED's are connected via PLC In · Red LED's are connected via PLC In2 · Confirmation tone is internally connected
1	0	-	1	L1	A0	-	L3	A1	on	
0	1	-	1	L2	A0	-	L2	A1	on	
0	0	-	1	L0	A0	-	L2	A1	on	
0	1	-	0	L0	A0	-	L0	A0	-	
1	0	-	0	L1	A0	-	L3	A1	on	
1	1	-	0	L3	A0	-	L3	A1	on	
1	1	-	1	L3	A0	-	L3	A1	on	

PROGRAM B 08

INPUT				ENABLE			ACTIVATED			DESCRIPTION
IN 1	IN 2	IN 3	UB	LED	tone	OUT	LED	tone	OUT	
0	-	-	0	L0	A0	-	L0	A0	-	<ul style="list-style-type: none"> · 6 green and 6 red LEDs · 4 connection cables · Button activation with UB · Green LEDs are connected via PLC In1 · Red LEDs are internally connected
1	-	-	1	L1	A0	-	L3	A0	on	
0	-	-	1	L0	A0	-	L2	A0	on	
1	-	-	0	L0	A0	-	L0	A0	-	

Configuration Status "Button Function"



CONNECTIVITY

PIN ASSIGNMENT FOR PLUG NO. 65

PIN	1	2	3	4	5	6	Appearance
Color	Brown	White	Blue	Black	Gray	na	
Signal	+UB	In 1	Gnd (0V)	Out	In 2	-	
Number of poles	6						
Plug type	Rectangular plug, MATE-N-LOK®						
Cable	Radox TENUIS, TW / S5F® 5x0.5 mm						
Manufacturer	TYCO Electronics / AMP, 794895-1						
Protection level	IP67						
Cable length	10 cm						

PIN ASSIGNMENT FOR PLUG NO. 64

PIN	1	2	3	4	Appearance
Color	Brown	White	Blue	Black	
Signal	+UB	In 1	Gnd (0V)	Out	
Number of poles	6				
Plug type	Rectangular plug, MATE-N-LOK®				
Cable	Radox TENUIS, TW / S4F® 4x0.5 mm				
Manufacturer	TYCO Electronics / AMP, 794805-1 corresponds BN65074				
Protection level	IP67				
Cable length	10 cm				

PIN-BELEGUNG FÜR STECKER-NR. 61

PIN	1	2	3	4	5	6	Appearance
Color	Brown	White	Blue	Black	Gray	Red	
Signal	+UB	In 1	Gnd (0V)	Out	In 2	In 3	
Number of poles	4-8						
Plug type	Circular connector, M12x1 screw						
Cable	Radox TENUIS, TW / S-F® 4-6x0.5 mm						
Manufacturer	ESCHA M12x1, 4-, 5-, 6-polig WAS4...WAS6						
Protection level	IP67						
Cable length	50 cm						

Note: 6 and 8 pole version only allow for operating voltage <60V

PIN ASSIGNMENT FOR PLUG NO. 60

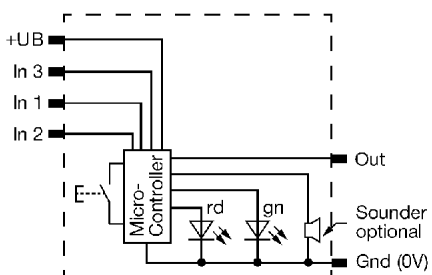
PIN	1	2	3	4	Appearance
Color	Brown	White	Blue	Black	
Signal	+UB	In 1	Gnd (0V)	Out	
Number of poles	4				
Connector Type	Circular Connectors, combined snap-in snap-lock M8x1 screw and corresponding BN 65074				
Cable	Radox TENUIS, TW / S4F® 4x0.5 mm				
Manufacturer	ESCHA diameter 8mm M8x1 (SSFP4), 4-pole, SSP4				
Protection level	IP67				
Cable length	10 cm				



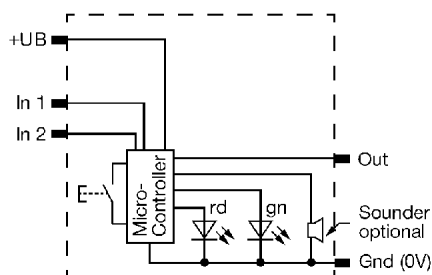
Note: 6 and 8 pole version only allow for operating voltage < 60V

CONNECTION DIAGRAM PNP

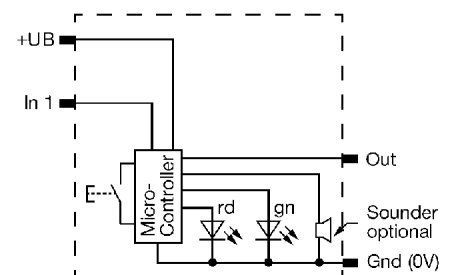
6-Wire type



5-Wire type



4-Wire type


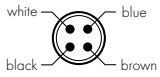

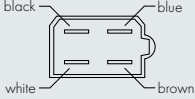

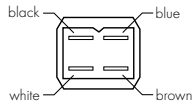

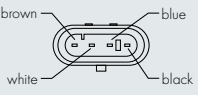

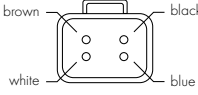


Configuration Status "Connection"





ADDITIONAL CONNECTORS AND TECHNICAL DATA

PLUG No.	DESCRIPTION	POLES	DESCRIPTION	APPEARANCE
0	Circular connectors	4	TYCO Electronics/AMP ArtNr.: 0-0925 0750-0	 
1	Flat connectors FASTIN-FASTON	4	TYCO Electronics/AMP ArtNr.: 180901	 
2	Flat connector FASTIN-FASTON	4	TYCO Electronics/AMP 626 057	 
66	SUPERSEAL connector	4	TYCO Electronics/AMP 2821061-1	 
71	Rectangular plug	4	GERMAN DTM044P-4P	 

TECHNICAL DATA

Electrical Data		Mechanical Data		Environmental Conditions	
Nominal voltage	24 V _{DC} , 36V _{DC} , 72 V _{DC} , 110 V _{DC}	Housing material and button surface	UV-Stabilized Polycarbonate (UL94 V-0)	Operating life	Approx. 7,000,000 press cycles
Operating voltage	Refer to nominal voltage +/-30%	Zentraflexring	NBR (Nitrile Butadiene Rubber)	Operating temperature	-40°C to +80°C
Nominal current	Max. 50 mA or 200 mA	Mounting ring	Polyamide Reinforced glass fiber	Protection level	Waterproof front IP67 rear IP60
Operating current	Approx. 10 mA	Button diameter	Mechanic construction section		
Switching output	PNP or NPN	Activation force	Approx 7.5 - 9N		
		Connection options	Connections section		

MULTIPROX

Industrial
Automation



Exclusive distributor
for Belgium & Luxemburg

MULTIPROX N.V.
Lion d'Orweg 12
B-9300 Aalst
T +32 (0)53 766 566
F +32 (0)53 78 39 77
mail@multiprox.be
www.multiprox.be

TSL-ESCHA GmbH
Elberfelder Str. 1 | 58553 Halver | Germany
Phone: +49 2353 66796-0 | Fax: +49 2353 66796-799

TSL S.A.
Rue du Stand 63 | 2800 Delémont | Switzerland
Phone: +41 32 4244-701 | Fax: +41 32 4244-799

info@tsl-escha.com · www.tsl-escha.com



At TSL Downloads!

TOUCH IT

TSL - A partner of the TURCK Group

