

# Series 95

12.1 mm 15.2 mm 18.4 mm IP40 50 mA 48VDC



Choose one component from each of the coloured sections to assemble a complete switch.  
For other options or further information please contact your local sales office.

## Product Profile

The Series 95 is a high quality switch range containing illuminated and non-illuminated pushbuttons. The switching elements are equipped with goldplated, self cleaning and momentary contact elements.

Technical data see page 135

- IP40 Protection
- Switch Rating, 50 mA, 48VDC
- Suitable for mounting on PCB's with thickness of 1.5 to 2.5 mm
- Switch held during the soldering process by the spring clip contacts
- Illumination using SMD LED's with PLCC housing (height 2.1 mm) and a radiation angle of approx. 120°
- Lenses available matt translucent or clear transparent in flat, concave or convex
- Available sizes are: 12.1 mm, 15.2 mm and 18.4 mm square
- Greater than 5 million switch cycles
- Independent illumination allows for flexibility
- Silent operation as required in some audio/ video applications and light and stage technology

## ● Illuminated pushbutton



Illuminated pushbutton, front measurement 12.1 x 12.1 mm, plastic lens colourless transparent, PCP measurement 12.7 x 12.7 mm, 1 NO, IP40

Part No.	Finish	Shape
95-313.720	Matt	Flush
95-313.750	Clear	Flush



Illuminated pushbutton, front measurement 15.2 x 15.2 mm, plastic lens colourless transparent, PCP measurement 15.88 x 15.88 mm, 1 NO, IP40

Part No.	Finish	Shape
95-515.740	Matt	Concave
95-515.720	Matt	Flush
95-515.770	Clear	Concave
95-515.750	Clear	Flush

## ● Illuminated pushbutton



Illuminated pushbutton, front measurement 18.4 x 18.4 mm, plastic lens colourless transparent, PCP measurement 19.05 x 19.05 mm, 1 NO, IP40

Part No.	Finish	Shape
95-414.740	Matt	Concave
95-414.720	Matt	Concave
95-414.770	Clear	Concave
95-414.750	Clear	Flush

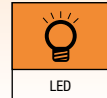
## A Accessories



Diffuser, 12.1 mm x 12.1 mm (small)

Part No.	
● Red	95-803.220
● Yellow	95-803.420
● Orange	95-803.320
● Green	95-803.520
● Blue	95-803.620
○ White	95-803.920 standard

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**A Accessories**



Diffuser, 15.2 mm x 15.2 mm (medium)



Diffuser, 18.4 mm x 18.4 mm (large)

**Switching element**



Front measurements, 12.1 mm x 12.1 mm (small)  
PCP measurements 12.7 mm x 12.7 mm

Part No.		Part No.		Part No.
● Red	95-805.220	● Red	95-804.220	95-313.000
● Yellow	95-805.420	● Yellow	95-804.420	
● Orange	95-805.320	● Orange	95-804.320	
● Green	95-805.520	● Green	95-804.520	
● Blue	95-805.620	● Blue	95-804.620	
○ White	95-805.920 standard	○ White	95-804.920 standard	

**Switching element**



Front measurements, 15.2 mm x 15.2 mm (medium)  
PCP measurements 15.88 mm x 15.88 mm



Front measurements, 18.4 mm x 18.4 mm (medium)  
PCP measurements 19.05 mm x 19.05 mm

**LED**



Please note that EAO does not offer LED's for this product.  
The required specification is detailed below

Part No.		Part No.	
	95-515.000		95-414.000

**SMD-LED type:**  
P-LCC package or similar, radiation angle approx. 120°  
use of smaller SMD-LED is possible.

**SMD-LED configurations:**  
max. 2 SMD-LED's (switch size 12.7 mm)  
max. 3 SMD-LED's (switch size 15.88 mm or 19.05 mm)  
single colour or multi colour

**Height of SMD-LED:**  
max. 2.1 mm

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## A Accessories



Lens flat, matt translucent or clear transparent, 12.1 mm x 12.1 mm (small)



Lens flat, matt translucent or clear transparent, 15.2 mm x 15.2 mm (medium)



Lens flat, matt translucent or clear transparent, 18.4 mm x 18.4 mm (large)

Colour	Part No.	Lens shape	Lens material	Colour	Part No.	Lens shape	Lens material	Colour	Part No.	Lens shape	Lens material
● Neutral	95-703.720	Flat	Matt transparent	● Neutral	95-705.720	Flat	Matt transparent	● Neutral	95-704.720	Flat	Matt transparent
● Neutral	95-703.750	Flat	Clear transparent	● Neutral	95-705.750	Flat	Clear transparent	● Neutral	95-704.750	Flat	Clear transparent
				● Neutral	95-705.740	Concave	Matt transparent	● Neutral	95-704.740	Concave	Matt transparent
				● Neutral	95-705.770	Concave	Clear transparent	● Neutral	95-704.770	Concave	Clear transparent
								● Neutral	95-704.730	Convex	Matt transparent
								● Neutral	95-704.760	Convex	Clear transparent

## A Accessories



Lens remover and mounting tool for use with all three switch sizes

Image	Part No.	Product description
1	95-900.009	Mounting tool
2	95-900.005	Lens remover

## Pushbutton- and Illuminated pushbutton

### Switching system

Gold plated momentary contact, 1 normally open, self-cleaning

### Material

#### Plastic items

PC, as per UL 94 HB, Cd-free

#### Material of contacts

CuSn, contact gold-plated, soldering terminal tinned

### Mechanical characteristics

#### Actuating travel

4.5 mm

#### Actuating force

3 N to end position

#### Switching point

at 2.3 ± 0.8 mm operation

#### Life time

>5 million operations, as per IEC 60512-5-9a

### Electrical characteristics

#### Illumination

recommended SMD-LED types:

P-LCC package or similar, radiation angle approx. 120°; use of smaller

SMD-LED is possible

SMD-LED configurations size:

max. 2 SMD-LEDs for switch size 12.70 mm

max. 3 SMD-LEDs for switch size 15.88 mm and 19.05 mm, single

colour or multi-colour

Height of SMD-LED:

max. 2.1 mm

#### Switch rating

min. 1 mVDC, 100 µA

max. 48 VDC, 50 mA

#### Electric strength

≤50 mΩ, as per IEC 60512-2-2b at new state

#### Isolation resistance

>1 TΩ, as per IEC 60512-2-3a between contacts

#### Electric strength

2.5 kVAC, as per IEC 60512-2-11

### Environmental characteristics

#### Front protection

IP40 before front plate for complete switch

#### Operating temperature

–25 °C ... +70 °C

#### Storage temperature

–40 °C ... +80 °C

#### Vibration resistance

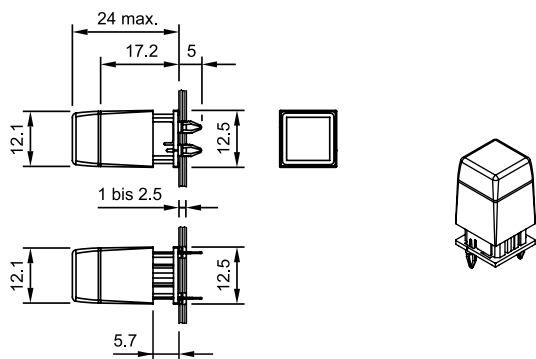
10 g, at 10 – 2000 Hz, 0.75 mm, as per IEC 60512-4-4

#### Shock resistance

50 g, 11 ms, as per IEC 60512-4-3

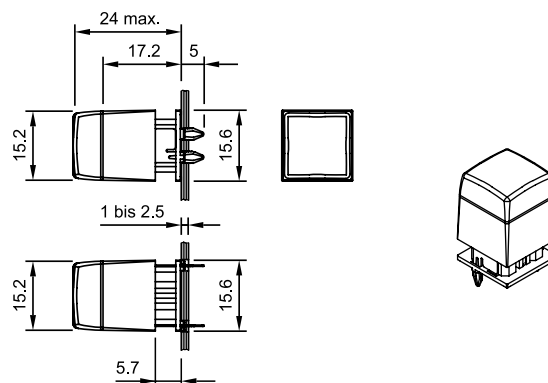
## 95 Pushbutton

Small



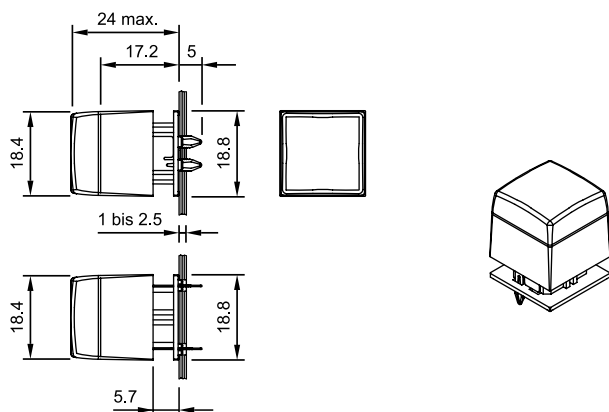
## 95 Pushbutton

Medium



## 95 Pushbutton

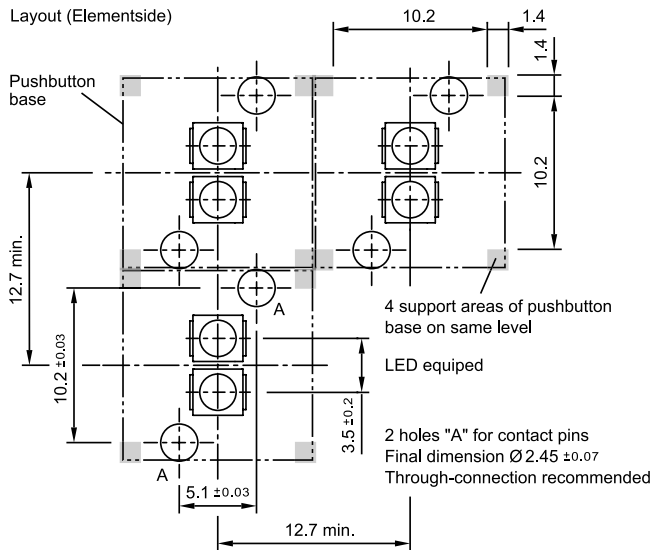
Large



## 95 PCB Layout

Small

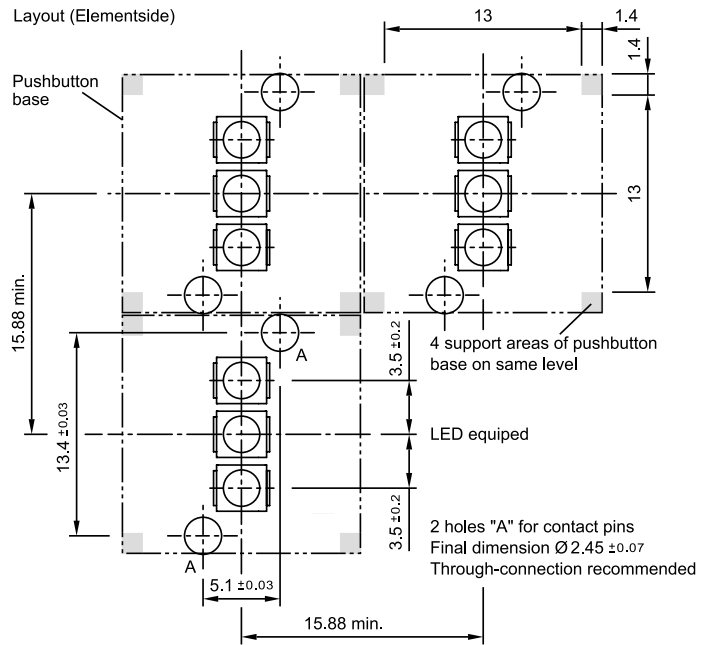
Layout (Elementside)



## 95 PCB Layout

Medium

Layout (Elementside)



## 95 PCB Layout

Large

Layout (Elementside)

