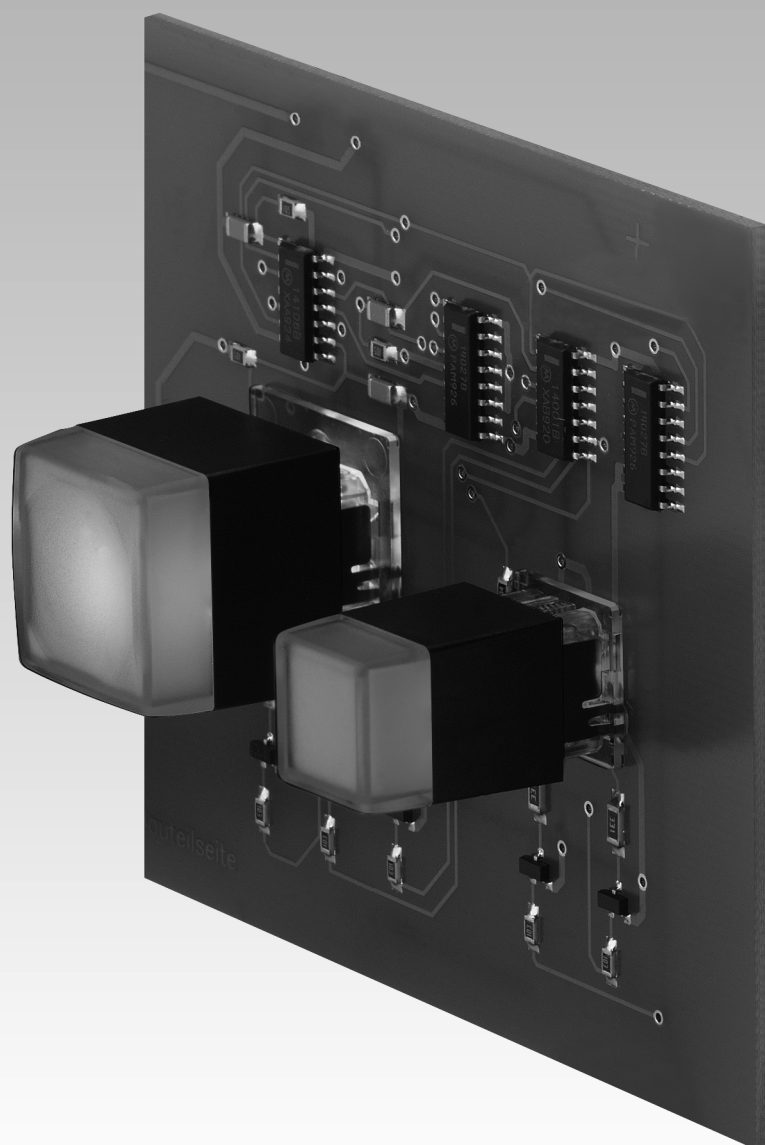




## EAO Product Information

Series 95



## Index

### Series 95

	<b>Description</b>	<b>Seite 575</b>
	<b>Product asseblly</b>	<b>Seite 576</b>
	<b>Product range</b>	
	- phushbuttons for standard mounting	<b>Seite 577</b>
	- accessories	<b>Seite 578</b>
	<b>Technical Data</b>	<b>Seite 580</b>

## Fitting

The pushbutton should be plugged-in to the mounting hole and soldered onto the printed circuit board (PCB).

## Construction

The large lens is available in two versions, convex or concave form. The small lens is available only in flat form. The large pushbutton has space for 3 SMD-LED's and the small one for 2 SMD-LED's.

## Marking

The diffuser can be printed or engraved, or a film insert (use series 97 or 99 parts) can be fitted between the diffuser and the lens.

## Mounting

Suitable for mounting on PCB's with thickness of 1.5 to 2.5 mm (use SMD-LED's for illumination).

The separated spring clip contact holds the switch in place during the assembly and soldering process.

The soldered joint makes the electrical contact and fixes the switch in the PCB.

Maximum soldering-temperature is 260 °C for 5 seconds.

There is a solder stop between the SMD-LED's and the contact mounting areas.

The PCB layout and mounting details are shown in the dimensional drawings.

The switch must be used with a lens.

## Switching system

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

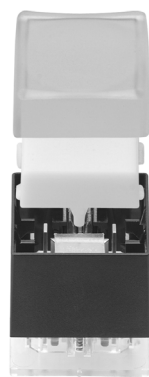
*All dimensions in mm.  
We reserve the right to modify technical data.*

## illuminated-/pushbutton



\_\_\_\_\_ 1  
 \_\_\_\_\_ 2  
 \_\_\_\_\_ 3

- 1 lens
- 2 Diffuser
- 3 switching element



\_\_\_\_\_ 1  
 \_\_\_\_\_ 2  
 \_\_\_\_\_ 3

- 1 lens
- 2 Diffuser
- 3 switching element

illuminated-/pushbutton




	contacts	switching action		Ø 19.05 x 19.05 mm part no.	Ø 12.70 x 12.70 mm part no.	technical drawing	mounting dimensions	component layout
illuminated-/pushbutton	1 NO	M	lens					
			matt neutral, flat		95-313.720	1	1	0,003
			matt neutral, concave	95-414.740		1	1	0,004
			matt neutral, convex	95-414.730		1	1	0,004
			polished clear, flat	95-414.750	95-313.750	1	1	0,003
			polished clear, concave	95-414.770		1	1	0,004

contacts: normally open = NO  
switching action: momentary action = M


## at front

### lens

	shape	colour	⌀ 19.05 x 19.05 mm Typ-Nr.	⌀ 12.70 x 12.70 mm Typ-Nr.	 kg
lens	flat	matt, translucent	<b>95-704.720</b>	<b>95-703.720</b>	0,001
		clear, transparent	<b>95-704.750</b>	<b>95-703.750</b>	0,001
	concave	matt, translucent	<b>95-704.740</b>		0,001
		clear, transparent	<b>95-704.770</b>		0,001
	convex	matt, translucent	<b>95-704.730</b>		0,001
		clear, transparent	<b>95-704.760</b>		0,001




### diffuser

	colour	⌀ 19.05 x 19.05 mm Typ-Nr.	⌀ 12.70 x 12.70 mm Typ-Nr.	 kg
diffuser	blue	<b>95-804.620</b>	<b>95-803.620</b>	0,001
	yellow	<b>95-804.420</b>	<b>95-803.420</b>	0,001
	grey	<b>95-804.820</b>	<b>95-803.820</b>	0,001
	green	<b>95-804.520</b>	<b>95-803.520</b>	0,001
	without	<b>95-804.020</b>	<b>95-803.020</b>	0,001
	clear	<b>95-804.720</b>	<b>95-803.720</b>	0,001
	orange	<b>95-804.320</b>	<b>95-803.320</b>	0,001
	red	<b>95-804.220</b>	<b>95-803.220</b>	0,001
	white	<b>95-804.920</b>	<b>95-803.920</b>	0,001



## at back

### switching element

	contacts	⌀ 19.05 x 19.05 mm Typ-Nr.	⌀ 12.70 x 12.70 mm Typ-Nr.	 kg
switching element no lens/diffuser	1 NO	<b>95-414.000</b>		0,003
			<b>95-313.000</b>	0,002



for combining with lens or diffuser  
contacts : 1 normally open = 1NO

assembling

lens remover

for large and small switches

	part no.	
lens remover	95-900.005	



mounting tool

for large and small switches

	part no.	
mounting tool	95-900.009	





## illuminated-/pushbutton

### material

#### plastic

PC / PEI self extinguishing as per UL 94 V0, 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 2.5 mm operation

#### life time

> 5 million operations as per IEC 512-5, test 9a

### electrical characteristics

#### power rating

min. 1 mVDC/100 µA

max. 48 VDC/50 mA

#### electric strength

<= 50 mΩ as per IEC 512-2, test 2b

#### electric strength

2.5 kVAC as per IEC 512-2-11

### Environmental characteristics

#### degree of protection

front as per IP40

#### operating temperature

-25°C to + 70°C

#### storage temperature

-40°C to + 80°C

#### resistance to vibration

10 g, at 10 - 2000 Hz, 0.75 mm as per IEC 512-4-4

#### resistance to shock

50 g/11 ms as per IEC 512-4-3

### illumination

#### SMD-LED type

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

#### SMD-LED configurations size

max. 2 SMD-LED's

(switch size 12.70 mm)

max. 3 SMD-LED's

(switch size 19.05 mm)

single colour or multi-colour

#### circuit layout

see dimension drawing

tolerance of SMD-LED on the printed circuit board ±0.2 mm

#### height of SMD-LED

max. 2.1 mm

#### Drawings on request.

#### Note:

More information about the PCB-Software can be found at

[www.pcad.com/en/library](http://www.pcad.com/en/library).

	<b>EAO AG</b> Tannwaldstrasse 88 4601 Olten, Switzerland
<b>E-mail</b>	info@eao.com
<b>Website</b>	www.eao.com
	<b>Belgium</b>
Phone	+32/2 456 00 10
E-mail	sales.ebl@eao.com
	<b>China</b>
Phone	+852/27 86 91 41
E-mail	sales.ehk@eao.com.hk
	<b>France</b>
Phone	+33/1 64 43 37 37
E-mail	sales.esa@eao.com
	<b>Germany</b>
Phone	+49/201 85 87 0
E-mail	sales.ede@eao.com
	<b>Japan</b>
Phone	+81/3 5401 0953
E-mail	sales.esj@eao.com
	<b>Netherlands</b>
Phone	+31/78 653 17 00
E-mail	sales.enl@eao.com
	<b>Sweden</b>
Phone	+46/8 683 86 60
E-mail	sales.esw@eao.com
	<b>Switzerland</b>
Phone	+41/62 388 95 00
E-mail	sales.ech@eao.com
	<b>United Kingdom</b>
Phone	+44/1444 236000
E-mail	sales.euk@eao.com
	<b>USA</b>
Phone	+1/203 877 4577
E-mail	sales.eus@eao.com
	<b>Other Countries</b>
Fax	+41/62 296 21 62
E-mail	info@eao.com
Website	www.eao.com