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.

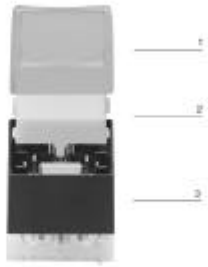There is a solder stop between the SMD-LED's and the contact mounting areas.

The PCB layout and mounting details are shown in the dimensional drawings.
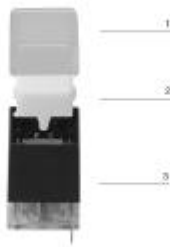
The switch must be used with a lens.

Switching system

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

illuminated-/pushbutton

1 lens
2 Diffuser
3 switching element

1 lens
2 Diffuser
3 switching element

illuminated-/pushbutton

	contacts	switching action	lens	b 19.05 x 19.05 mm part no.	b 12.70 x 12.70 mm part no.	technical drawing	mounting dimensions	component layout	e
illuminated-/pushbutton	1 NO	M	neutral, flat		**95-313.720**	1	1	1	0,003
			neutral, concave	**95-414.740**		1	1	1	0,004
			neutral, convex	**95-414.730**		1	1	1	0,004

contacts: normally open = NO
switching action: momentary action = M
technical drawings from page 8, mounting dimensions from page 8, component layouts from page 8

at front

lens

	shape	colour	b 19.05 x 19.05 mm Typ-Nr.	b 12.70 x 12.70 mm Typ-Nr.	e
lens	flat		**95-704.720**	**95-703.720**	0,001
			95-704.750	**95-703.750**	0,001
	concave		**95-704.740**		0,001
			95-704.770		0,001
	convex		**95-704.730**		0,001
			95-704.760		0,001

diffuser

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

at back

switching element

	contacts	b 19.05 x 19.05 mm Typ-Nr.	b 12.70 x 12.70 mm Typ-Nr.	e
switching element		**95-414.000**		0,003
no lens/diffuser			**95-313.000**	0,002

assembling

lens remover

for large and small switches

	part no.	e
lens remover	**95-900.005**	

mounting tool

for large and small switches

	part no.	e
mounting tool	**95-900.009**	

illuminated-/pushbutton

height of SMD-LED
max. 2.1 mm

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)
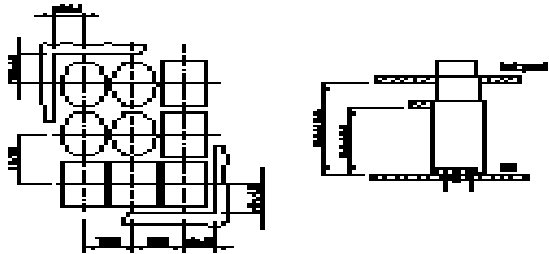single colour or multi-colour

circuit layout
see dimension drawing
tolerance of SMD-LED on the printed circuit board ±0.2 mm

technical drawings

1 illuminated-/pushbutton, switching element
page 4,

mounting dimensions

1 illuminated-/pushbutton
page 4

component layouts

1 illuminated-/pushbutton
page 4