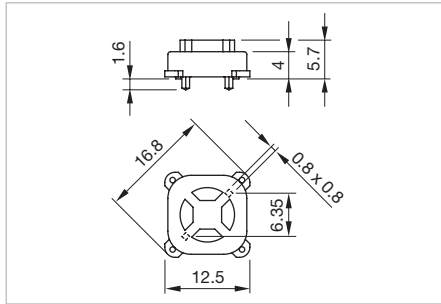


70 PCB pushbuttons

Illumination element



Product can differ from the current configuration.



Dimensions

Equipment consisting of (schematic overview)



Lens

page 7



LED





Illumination element

Each Part Number listed below includes all the black components shown in the 3D-drawing.

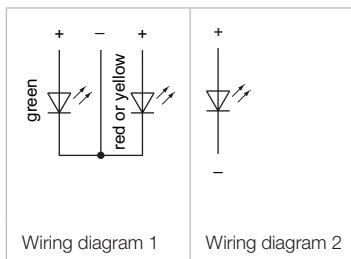
To obtain a complete unit, please select the red components from the pages shown.

Additional Information

- The customer has to decide what series resistor shall be used to the LED
- Dimensions with fitted lens see details «Lens»
- Luminosity and wave length variations caused by LED manufacturing processes may cause slight differences regarding the illumination

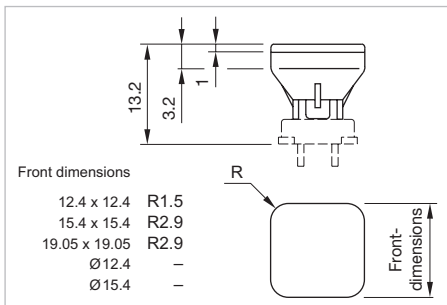
LED colour	Forward voltage typ.	Lumi. intensity	Dom. wavelength	Terminal	Part No.	Component layout	Wiring diagram	Weight
 <p>Illumination element</p>								
Single-LED red	2.1 VDC @ 20 mA	200 mcd	625 nm	PCB	70-820.2	3	2	0.001 kg
Single-LED orange	2.1 VDC @ 20 mA	220 mcd	590 nm	PCB	70-820.3	3	2	0.001 kg
Single-LED yellow	3.3 VDC @ 30 mA	500 mcd	570 nm	PCB	70-820.4	3	2	0.001 kg
Single-LED green	3.5 VDC @ 20 mA	250 mcd	525 nm	PCB	70-820.5	3	2	0.001 kg
Single-LED blue	3.5 VDC @ 20 mA	450 mcd	470 nm	PCB	70-820.6	3	2	0.001 kg
Single-LED white	3.3 VDC @ 20 mA	600 mcd	x=0.29/y=0.31 nm	PCB	70-820.9	3	2	0.001 kg
 <p>Illumination element</p>								
				PCB	92-800.042	1		0.001 kg

The component layouts you will find from page 10







Front


Lens



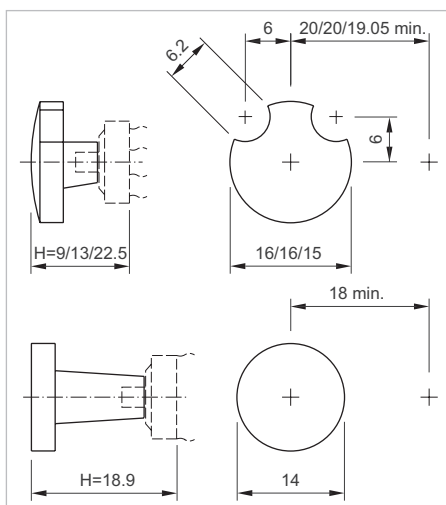
Dimensions

Lens	Part No.	Weight
 <p>Lens, Front dimension 19.05 x 19.05 mm</p>		
Plastic white translucent	70-920.9	0.001 kg
 <p>Lens, Front dimension 15.4 x 15.4 mm</p>		
Plastic red translucent	70-921.2	0.001 kg
Plastic orange translucent	70-921.3	0.001 kg
Plastic yellow translucent	70-921.4	0.001 kg
Plastic green translucent	70-921.5	0.001 kg
Plastic blue translucent	70-921.6	0.001 kg
Plastic white translucent	70-921.9	0.001 kg
 <p>Lens, Front dimension 12.4 x 12.4 mm</p>		
Plastic red translucent	70-922.2	0.001 kg
Plastic orange translucent	70-922.3	0.001 kg
Plastic yellow translucent	70-922.4	0.001 kg
Plastic green translucent	70-922.5	0.001 kg
Plastic blue translucent	70-922.6	0.001 kg
Plastic white translucent	70-922.9	0.001 kg
 <p>Lens, Front dimension Ø 15.4 mm</p>		
Plastic red translucent	70-911.2	0.001 kg
Plastic orange translucent	70-911.3	0.001 kg
Plastic yellow translucent	70-911.4	0.001 kg
Plastic green translucent	70-911.5	0.001 kg
Kunststoff weiss transluzent	70-911.9	0.001 kg


70 Accessories

Lens	Part No.	Weight
 Lens, Front dimension Ø 12.4 mm		
Plastic red translucent	70-912.2	0.001 kg
Plastic orange translucent	70-912.3	0.001 kg
Plastic yellow translucent	70-912.4	0.001 kg
Plastic green translucent	70-912.5	0.001 kg
Plastic white translucent	70-912.9	0.001 kg

Spacing cap




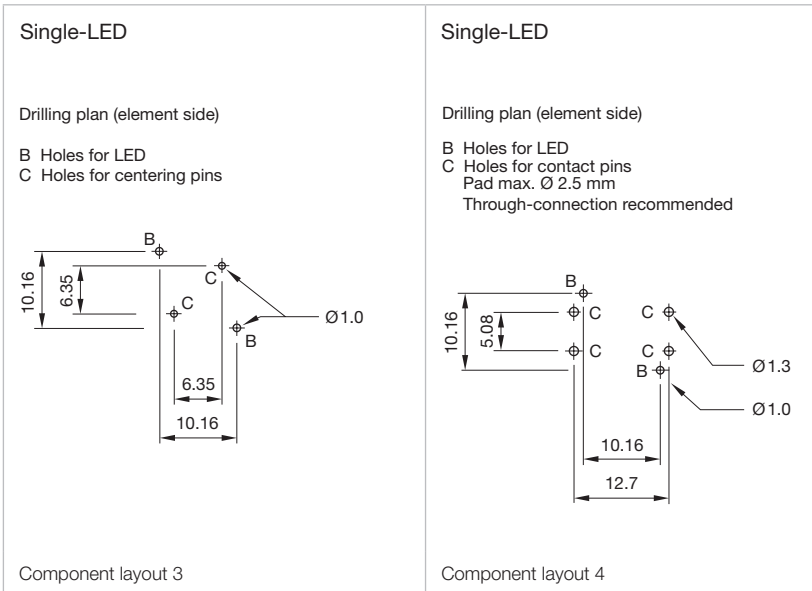
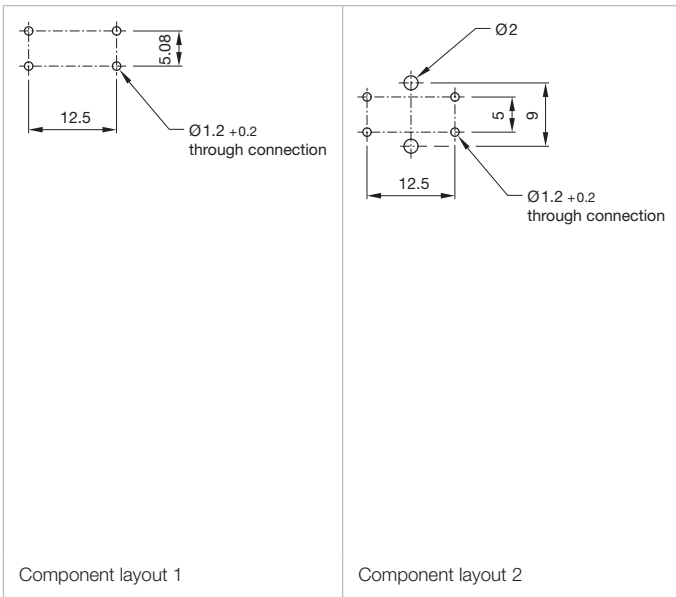
Dimensions

Product attribute	Part No.	Weight
 Spacing cap		
without recesses for LED, H = 18.9 mm	70-901.0	0.001 kg
2 recesses for LED, H = 9 mm	70-910.0	0.001 kg
2 recesses for LED, H = 13 mm	70-911.0	0.001 kg
2 recesses for LED, H = 22.5 mm	70-912.0	0.001 kg

Illumination**Single-LED, T1 Bi-Pin****Additional Information**

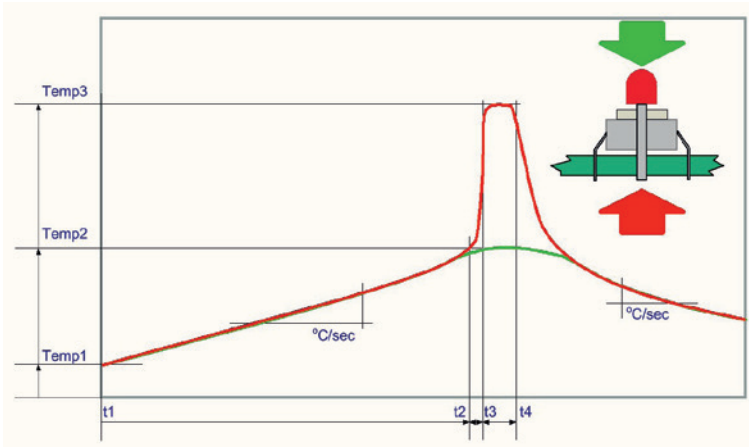
- The customer has to decide what series resistor shall be used to the LED
- Luminosity and wave length variations caused by LED manufacturing processes may cause slight differences regarding the illumination

LED colour	Forward voltage typ.	Lumi. intensity	Dom. wavelength	Part No.	Weight
 <p>Single-LED</p>					
Single-LED red	2.1 VDC @ 20 mA	200 mcd	625 nm	10-2602.3202L	0.001 kg
Single-LED orange	2.1 VDC @ 20 mA	220 mcd	590 nm	10-2602.3203L	0.001 kg
Single-LED yellow	3.3 VDC @ 20 mA	500 mcd	570 nm	10-2602.3204L	0.001 kg
Single-LED green	3.5 VDC @ 20 mA	250 mcd	525 nm	10-2602.3205L	0.001 kg
Single-LED blue	3.5 VDC @ 20 mA	450 mcd	470 nm	10-2602.3206L	0.001 kg
Single-LED white	3.3 VDC @ 20 mA	600 mcd	x=0.29/y=0.31 nm	10-2602.3209L	0.001 kg



70 Application guidelines

Temperature curve wave soldering



Green curve: Temperature on the component side of the pcb
Red curve: Temperature on the soldering side of the pcb

Room temperature: Temp 1

Preheating: Temperature process = Temp 1 ... Temp 2
Process time = t1 ... t2

Ramp up to soldering temperature: Process time = t2 ... t3

Soldering phase: Temperature process = Temp 3
Process time = t3 ... t4

Iron soldering

Basic specification for iron soldering IEC 60068-2-20

Maximum temperature at tip of iron: 320 °C

Maximum soldering time: 3 sec

Cleaning/Lacquering

The switching elements are not sealed. Cleaning up the PCB may damage the contacts in the switching elements. For this reason, the following points should be noted:

- When soldering make sure that the flux does not pass on the upper side of the PCB.
- When cleaning the PCB with detergents ensure that no dust or other debris may get inside of the switching elements.
- Ensure that no lacquer penetrates into the interior of the switching element when lacquering the PCB.

Storage of components

To obtain the optimum solderability of the components, the following points should be noted during storage:

- Do not store components in locations with high temperature or humidity.
- Do not expose components to corrosive gases.
- Avoid direct sunlight for a long period.