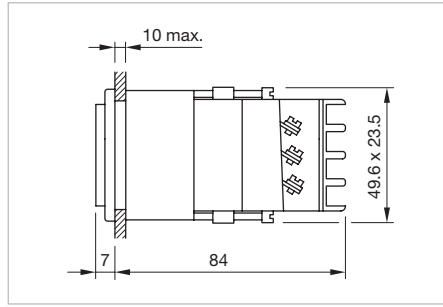


03 Flush design

Pushbutton single-headed, IP 40



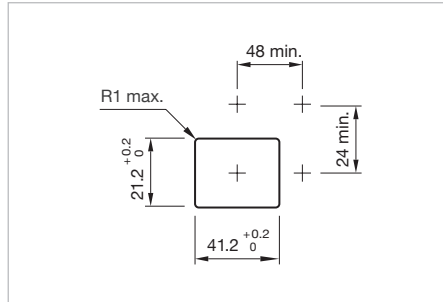
Product can differ from the current configuration.



Dimensions [mm]

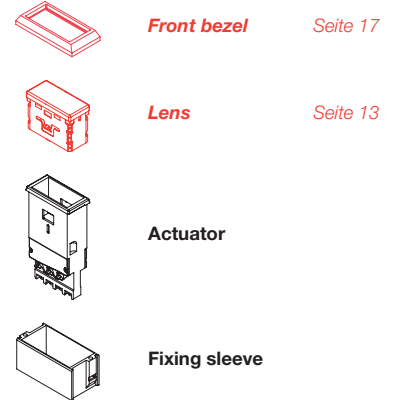
Additional Information

- For front dimension 24 x 48 mm




Mounting cut-outs [mm]

Equipment consisting of (schematic overview)



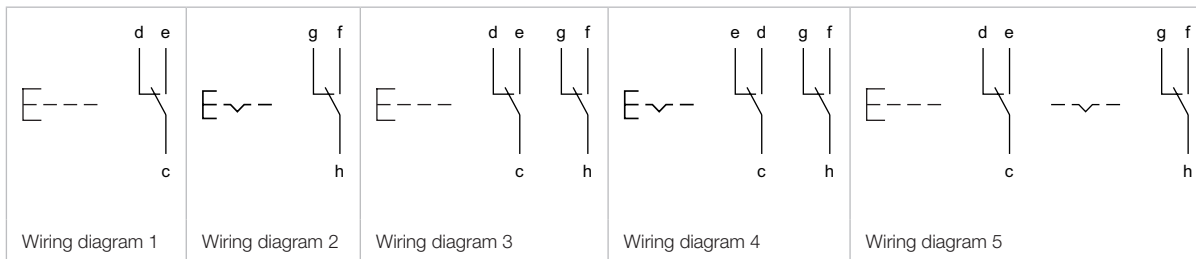
Each Part Number listed below includes all the black components shown in the 3D-drawing.

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

Contacts	Switching action	Terminal	Part No.	Wiring diagram	Weight
 <p>Pushbutton actuator single-headed</p>					
1 C	B	Screw	03-611.011	1	0.055 kg
	C	Screw	03-613.011	2	0.055 kg
2 C	B	Screw	03-612.011	3	0.065 kg
	C	Screw	03-614.011	4	0.065 kg
	B - C	Screw	03-615.011	5	0.065 kg


Contacts: C = Changeover

Switching action: B = Momentary, C = Maintained




Lens single-headed uni-colour
Additional Information

- Material plastic, holder metal

Product attribute	Dimension	Lens	Part No.	Weight
 <p>Lens single-headed uni-colour for pushbutton single-headed</p>				
illuminative, not suitable for film insert, ripped	18 x 38 mm	smoked translucent	03-901.1	0.009 kg
		red translucent	03-901.2	0.009 kg
		orange translucent	03-901.3	0.009 kg
		yellow translucent	03-901.4	0.009 kg
		green translucent	03-901.5	0.009 kg
		blue translucent	03-901.6	0.009 kg
		colourless translucent	03-901.7	0.009 kg
		white translucent	03-901.9	0.009 kg
illuminative, use holder for film insert	18 x 38 mm	colourless transparent	03-941.7	0.009 kg
illuminative, with black rim (prevents lateral light escape), use holder for film insert	18 x 38 mm	colourless transparent	03-946.7	0.009 kg
		smoked transparent	03-947.1	0.009 kg
non-illuminative, ripped	18 x 38 mm	black opaque	03-901.0	0.009 kg
		grey opaque	03-901.8	0.009 kg

Lens single-headed bi-colour
Additional Information


- Material plastic, holder metal

Product attribute	Dimension	Lens	Part No.	Weight
 <p>Lens single-headed bi-colour for pushbutton single-headed</p>				
illuminative, with light barrier, not suitable for film insert, ripped	18 x 38 mm	black-red opaque-translucent	03-902.0/2	0.010 kg
		black-orange opaque-translucent	03-902.0/3	0.010 kg
		black-yellow opaque-translucent	03-902.0/4	0.010 kg
		black-green opaque-translucent	03-902.0/5	0.010 kg
		black-blue opaque-translucent	03-902.0/6	0.010 kg
		black-colourless opaque-translucent	03-902.0/7	0.010 kg
		anthracite-anthracite translucent	03-902.1/1	0.010 kg
		red-red translucent	03-902.2/2	0.010 kg
		red-orange translucent	03-902.2/3	0.010 kg
		red-yellow translucent	03-902.2/4	0.010 kg
		red-green translucent	03-902.2/5	0.010 kg
		red-blue translucent	03-902.2/6	0.010 kg
		red-colourless translucent	03-902.2/7	0.010 kg
		grey-red opaque-translucent	03-902.2/8	0.010 kg
		red-white translucent	03-902.2/9	0.010 kg

Diffuser plate single-headed

Additional Information


- For film insert
- For lens single-headed uni-colour, lettering only visible when illuminated

Part No.	Weight
 <p>Diffuser plate single-headed</p>	
03-909	0.001 kg

Front bezel flush

Additional Information


- Lens only removable with lens remover Part No. 02-905

Front bezel	Part No.	Weight
 <p>Front bezel flush, Front dimension 24 x 48 mm</p>		
Plastic black	03-965.0	0.001 kg

Front bezel raised


Additional Information

- Lens only removable with lens remover Part No. 98-969

Front bezel	Part No.	Weight
 <p>Front bezel raised, Front dimension 24 x 48 mm</p>		
Plastic black	03-967.0	0.001 kg

03 Accessories

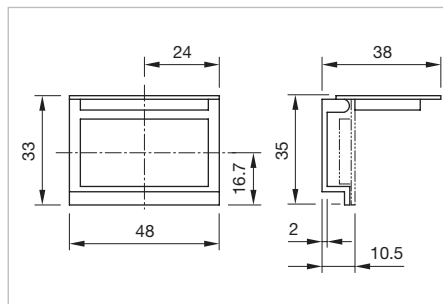
Light barrier

Part No.	Weight
 <p>Light barrier</p>	
03-907	0.002 kg


Protective cover, IP 40

Additional Information

- Use only flush front bezel
- Hinged, with means for sealing
- Please note that bigger minimum distances are necessary



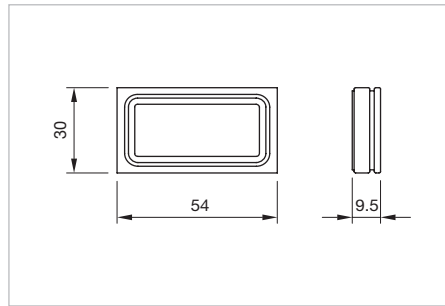
Dimensions [mm]

Product attribute	Material	Optics	Dimension	Part No.	Weight
 <p>Protective cover</p>					
for button with mounting cut-out 21.2 x 41.2 mm	Plastic	transparent	48 x 33 mm	03-925	0.001 kg

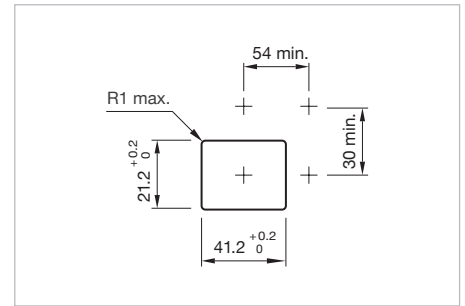
Front protective cap, IP 65

Additional Information


- Use only flush front bezel
- Three-part



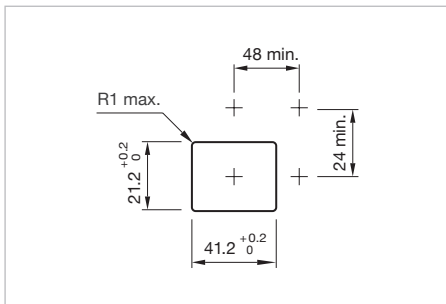
Dimensions [mm]




Mounting cut-outs [mm]

Dimension	Material	Colour	Optics	Temperature	Part No.	Weight
 <p>Front protective cap</p>						
30 x 54 mm	PVC	colourless	transparent	-20 ... +60 °C	03-924	0.005 kg

Blind plug





Mounting cut-outs [mm]

Dimension	Mounting cut-out	Material	Colour	Part No.	Weight
 <p>Blind plug</p>					
24 x 48 mm	21.2 x 41.2 mm	Plastic	black	03-949.0	0.005 kg
			grey	03-949.8	0.005 kg

Mounting



Lens remover

Product attribute	Part No.	Weight
 <p>Lens remover</p>		
for flush front bezel	02-905	0.011 kg
 <p>Lens remover</p>		
for raised front bezel	98-968	0.004 kg

Lamp remover

Additional Information

▲ **Caution:** A switching process might be released when replacing the lamp

Product attribute	Part No.	Weight
 <p>Lamp remover</p>		
for LED	03-996	0.027 kg
 <p>Lamp remover</p>		
for filament lamp	61-9740.0	0.003 kg

03 Technical data

Actuator with snap-action switching element

Switching system

1 or 2 self-cleaning, snap-action switching elements.
1 or 2 double-throw contacts.

Material

Material of contact

Standard version:

Silver ($U > 20\text{ V}$)

Special versions: (on request)

Gold/Silver 700Au/300 Ag ($U < 50\text{ V}$)

Silver/Palladium 700Ag/300 Pd ($U > 20\text{ V}$) for atmospheres containing sulphur

Switch housing

Thermosetting material, heat-resistant

Indicator housing

Polyamide

Mechanical characteristics

Terminals

Screw terminal (with self-lifting clip):

max. wire cross-section, $2 \times 2.5\text{ mm}^2$

max. wire cross-section of stranded cable, $2 \times 1.5\text{ mm}^2$

Tightening torque

For fixing sleeve max. 20 Ncm

For screw terminal max. 80 Ncm

Actuating force

6 N... 12 N

Actuating travel

5 mm

Mechanical lifetime

Momentary action 2 million operations

Maintained action 1 million operations

Electrical characteristics

Standards

The switches comply with the "Standards for low-voltage switching devices" EN IEC 60947-5-1

Rated insulation voltage

400 VAC/440 VDC, as per IEC 60947-5-1

Conventional free air thermal current

10 A

The maximum current in continuous operation and at ambient temperature not exceeding the quoted maximum values.

Switch rating

400 VAC, 10 A, $\cos\phi$ 0.95, as per IEC 60947-5-1

250 VAC, 10 A, as per UL

Electric strength

2500 VAC, 50 Hz, 1 min. between all terminals and earth, as per IEC 60947-5-1

Environmental conditions

Storage temperature

$-30\text{ }^\circ\text{C} \dots +85\text{ }^\circ\text{C}$

Service temperature

$-25\text{ }^\circ\text{C} \dots +55\text{ }^\circ\text{C}$

For indicators and illuminated pushbuttons mounted as a block, make sure the heat can escape freely.

Protection degree

Front side IP 40, IP 65 with spray cover, as per IEC 60529

Vibration resistance

10 g at 10 ... 2000 Hz, amplitude 1.0 mm, as per IEC 60068-2-6

Approvals

Approbations

CB (IEC 60947-5-1)

CSA

Germanischer Lloyd

UL

Declaration of conformity

CE