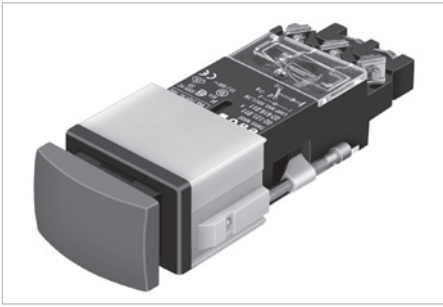
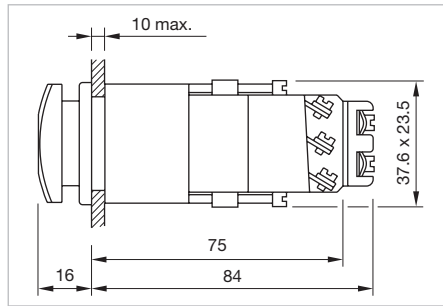


# 02 Flush design

## Mushroom-head pushbutton, IP 40



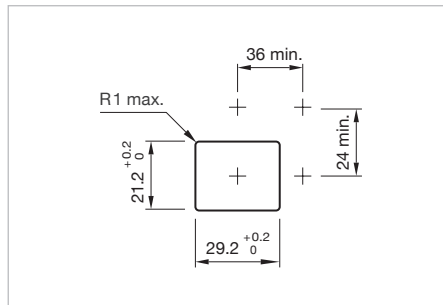
Product can differ from the current configuration.



Dimensions [mm]

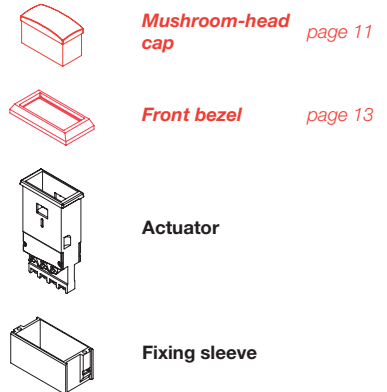
### Additional Information

- For front dimension 24 x 36 mm
- Use only flush front bezel




Mounting cut-outs[mm]

### Equipment consisting of (schematic overview)



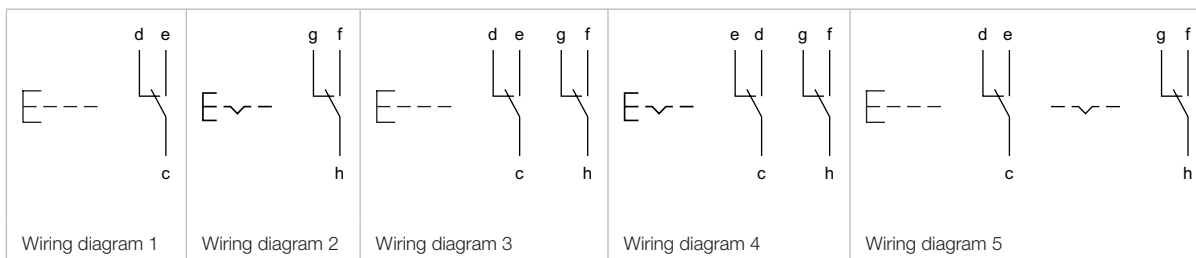
Each Part Number listed below includes all the black components shown in the 3D-drawing.

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

Contacts	Switching action	Terminal	Part No.	Wiring diagram	Weight
 <b>Mushroom-head pushbutton actuator</b>					
1 C	B	Screw	<b>02-611.011</b>	1	0.045 kg
	C	Screw	<b>02-613.011</b>	2	0.045 kg
2 C	B	Screw	<b>02-612.011</b>	3	0.050 kg
	C	Screw	<b>02-614.011</b>	4	0.050 kg
	B - C	Screw	<b>02-615.011</b>	5	0.050 kg

Contacts: C = Changeover

Switching action: B = Momentary, C = Maintain




Front

Lens

Additional Information

- Material plastic

Product attribute	Dimension	Lens	Part No.	Weight		
 <p><b>Lens</b></p>	17.5 x 25.4 mm	illuminative, not suitable for film insert, ripped	smoked translucent	<b>02-901.1</b>	0.004 kg	
		red translucent	<b>02-901.2</b>	0.004 kg		
		orange translucent	<b>02-901.3</b>	0.004 kg		
		yellow translucent	<b>02-901.4</b>	0.004 kg		
		green translucent	<b>02-901.5</b>	0.004 kg		
		blue translucent	<b>02-901.6</b>	0.004 kg		
		colourless transparent	<b>02-901.7</b>	0.004 kg		
		white translucent	<b>02-901.9</b>	0.004 kg		
		illuminative, use holder for film insert	17.5 x 25.4 mm	red translucent	<b>02-902.2</b>	0.004 kg
				green translucent	<b>02-902.5</b>	0.004 kg
colourless transparent	<b>02-902.7</b>			0.004 kg		
non-illuminative	17.5 x 25.4 mm	black opaque	<b>02-901.0</b>	0.004 kg		
		grey opaque	<b>02-901.8</b>	0.004 kg		

Keylock front bezel

Additional Information


- Keylock number YB1
- Further lock numbers see «Technical data»

Product attribute	Dimension	Material	Colour	Part No.	Weight	
 <p><b>Keylock front bezel</b></p>	17.5 x 25.5 mm	Plastic	grey	<b>02-980.1</b>	0.002 kg	
	for keylock switch Part No. 02-695	17.5 x 25.5 mm	Plastic	grey	<b>02-982.1</b>	0.002 kg

**Front bezel raised**

**Additional Information**

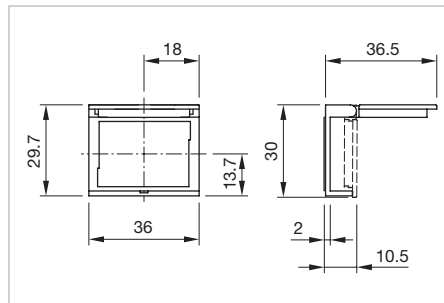
- Lens only removable with lens remover  
Part No. 98-969

Front bezel	Part No.	Weight
 <p><b>Front bezel raised, Front dimension 24 x 36 mm</b></p>		
Pastic black	<b>02-967.0</b>	0.001 kg


**Protective cover, IP 65**

**Additional Information**

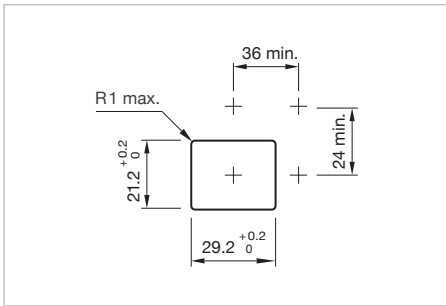
- Please note that bigger minimum distances are necessary
- Use only flush front bezel
- Hinged, with means for sealing
- Front panel thickness reduces by 2 mm




Dimensions [mm]

Product attribute	Material	Optics	Dimension	Part No.	Weight
 <p><b>Protective cover</b></p>					
for button with mounting cut-out 21.2 x 29.2 mm	Plastic	transparent	36 x 29.7 mm	<b>22-925</b>	0.004 kg

**Blind plug**



Mounting cut-outs [mm]

Dimension	Material	Colour	Part No.	Weight
 <p><b>Blind plug</b></p>	Plastic	black	<b>02-949.0</b>	0.004 kg
		grey	<b>02-949.8</b>	0.004 kg

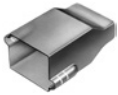
# 02 Accessories

## Backside

### Terminal cover

#### Additional Information

- For all connection methods
- Not suitable for indicators with built-in series resistor with lamp

Part No.	Weight
 <b>Terminal cover</b>	
02-929	0.005 kg

**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 > 20V)  
Special versions: (on request)  
Gold/Silver 700Au/300Ag (U < 50V)  
Silver/Palladium 700Ag/300Pd (U > 20V) for atmospheres containing sulphur

**Switch housing**

Thermosetting material, heat-resistant

**Indicator housing with reduced length**

Polyamide

**Mechanical characteristics**
**Terminals**

Screw terminal (with self-lifting clip):  
max. wire cross-section, 2 x 2.5 mm<sup>2</sup>  
max. wire cross-section of stranded cable, 2 x 1.5 mm<sup>2</sup>

**Tightening torque**

For fixing sleeve max. 20Ncm  
For screw terminal max. 80Ncm

**Actuating force**

6N ... 12N

**Actuating travel**

5mm

**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" IEC 60947-5-1

**Rated insulation voltage**

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

**Conventional free air thermal current**

10A

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

**Switch rating**

400VAC, 10A, cosφ 0.95, as per IEC 60947-5-1  
250VAC, 10A, as per UL

**Electric strength**

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

**Environmental conditions**
**Storage temperature**

-30°C ... +85°C

**Service temperature**

-25°C ... +55°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

**Shock resistance**

15g for 11 ms, as per IEC 60068-2-27

**Vibration resistance**

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

**Approvals**
**Approbations**

CB (IEC 60947-5-1)  
CSA  
Germanischer Lloyd  
UL

**Declaration of conformity**

CE