INSTALLATION GUIDE FOR TYPE C PUSH-BUTTONS

CONTROL AND SIGNALING SOLUTIONS FOR HARSH ENVIRONMENTS
## Drillings summary table

<table>
<thead>
<tr>
<th>Push-Button</th>
<th>Drilling</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>C16BL-C16CL</strong></td>
<td><img src="drilling1.png" alt="Diagram" /></td>
</tr>
<tr>
<td><strong>C16BLE-C16CLE</strong></td>
<td><img src="drilling2.png" alt="Diagram" /></td>
</tr>
<tr>
<td><strong>C16BE-C16CE</strong></td>
<td><img src="drilling3.png" alt="Diagram" /></td>
</tr>
<tr>
<td><strong>C16B</strong></td>
<td><img src="drilling4.png" alt="Diagram" /></td>
</tr>
<tr>
<td><strong>C16C</strong></td>
<td><img src="drilling5.png" alt="Diagram" /></td>
</tr>
<tr>
<td><strong>C16BEP-C16CEP</strong></td>
<td><img src="drilling6.png" alt="Diagram" /></td>
</tr>
</tbody>
</table>

*The specifications and drawings given are subject to change and are not binding unless confirmed by our specialists.*
Panel thickness summary table

<table>
<thead>
<tr>
<th>Push-Button</th>
<th>Panel thickness (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C16BL-C16CL</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>C16BLE-C16CLE</td>
<td>2 to 4 mm</td>
</tr>
<tr>
<td>C16BLEP-C16CLEP</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>C16B</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>C16C</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>C16BE-C16CE</td>
<td></td>
</tr>
<tr>
<td>C16BEP-C16CEP</td>
<td></td>
</tr>
</tbody>
</table>

* The specifications and drawings given are subject to change and are not binding unless confirmed by our specialists.
## Tightening tools and recommended torque values summary table

<table>
<thead>
<tr>
<th>Push-Button</th>
<th>Standard mounting wrench</th>
<th>Adapter for torque tightening</th>
<th>Torque tightening</th>
<th>Torque* (N.m)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>C16BL-C16CL</strong></td>
<td>1SNA317179R0000</td>
<td>1SNA910707T0100</td>
<td>Standard wrench + adapter</td>
<td><strong>12 N.m</strong></td>
</tr>
<tr>
<td><strong>C16BLE-C16CLE</strong>&lt;br&gt;C16BLEP-C16CLEP</td>
<td></td>
<td></td>
<td></td>
<td><strong>17 N.m</strong></td>
</tr>
<tr>
<td><strong>C16B</strong></td>
<td>1SNA357099R0400</td>
<td>1SNA910703T0500</td>
<td></td>
<td><strong>10 N.m</strong></td>
</tr>
<tr>
<td><strong>C16C</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>C16BE-C16CE</strong>&lt;br&gt;C16BEP-C16CEP</td>
<td></td>
<td></td>
<td></td>
<td><strong>1,05 N.m</strong></td>
</tr>
</tbody>
</table>

*Recommended values in case of vibrations/seismic stresses

*The specifications and drawings given are subject to change and are not binding unless confirmed by our specialists.
**Installation and maintenance**

**Fixing of push buttons C16BL-C16CL**

The standard device can be fitted on a 2 to 4 mm thick panel.

The product is fixed to the panel through a central nut. 2 people are recommended to fix correctly the push-button: a person behind the panel to guide and maintain the product, the other one to set up the escutcheon plate, the central nut and then tighten the push-button.

*The principle of fixation for illuminated push buttons is identical to the principle of fixation for TL and TPL switches*

**Step 0 (preparation):**

Separate all the components of the front part of the push button as presented below.

*Step 1:*

Insert the mounting nut on the mounting wrench (reference: 1SNA317179R0000) by pressing on the piston.

*If the product is equipped with an escutcheon plate, set it up with the rubber washer on the mounting nut.*

*The specifications and drawings given are subject to change and are not binding unless confirmed by our specialists.*
Installation and maintenance

Fixing of push buttons C16BL-C16CL

**Step 2:**

Position the push button at the rear of the panel by respecting the orientation* and take care of the right alignment with the drill hole. Tighten the push button with the mounting wrench and take care of the right adjustment of its position and the position of escutcheon plate.

* Normal orientation of the push buttons:

View from the back of the push button, the contacts located at the right have odd marks and the contacts located at the left have even marks.

**Step 3:** *(We recommend to realize this step if the products can be subject to vibrations/seismic stresses. In other cases this step is facultative but recommended).*

With a calibrated torque wrench, the standard mounting wrench and the adapter (reference: 1SNA910707T0100) complete the tightening by applying a torque of 12 N.m.
Installation and maintenance

Fixing of push buttons C16BL-C16CL

**Step 3**: (lamp) *(Ignore this step if the lamp isn’t used or if it’s installed by factory)*

Put the lamp in the lamp/led puller for E10 and E14 socket: reference 1SNA910713T2600

Insert the assembly into the socket of the switch taking care to center on the thread. Screw gently clockwise. Remove the lamp/led puller.

**Step 4**:

Set up the button in abutment of the mechanical transmission part. /!\ A single direction of assembly

*The specifications and drawings given are subject to change and are not binding unless confirmed by our specialists.*
**Installation and maintenance**

**Fixing of push buttons**

C16BLE-C16CLE-C16BLEP-C16CLEP

The standard device can be fitted on a 2 to 4 mm thick panel.

The product is fixed to the panel through a central nut. 2 people are recommended to fix correctly the push-button: a person behind the panel to guide and maintain the product, the other one to set up the escutcheon plate, the central nut and then tighten the push-button.

*The principle of fixation for illuminated push buttons is identical to the principle of fixation for TL and TPL switches*

**Step 0 (preparation):**

Separate all the components of the front part of the push button as presented below.

*For push button type C16BLE and C16CLE, there is no protective plate, only recess bezel.*

**Step 1:**

Insert the set mounting nut+ bezel (+ protective plate*) on the mounting wrench (reference: 1SNA317179R0000) by pressing on the piston.

*The specifications and drawings given are subject to change and are not binding unless confirmed by our specialists.*
Installation and maintenance

Fixing of push buttons
C16BLE-C16CLE-C16BLEP-C16CLEP

**Step 2:**
Position the push button at the rear of the panel by respecting the orientation* and take care of the right alignment with the drill hole. Tighten the push button with the mounting wrench and take care of the right adjustment of its position and the position of escutcheon plate.

* Normal orientation of the push buttons:
View from the back of the push button, the contacts located at the right have odd marks and the contacts located at the left have even marks.

**Step 3:** *(We recommend to realize this step if the products can be subject to vibrations/seismic stresses. In other cases this step is facultative but recommended).*

With a calibrated torque wrench, the standard mounting wrench and the adapter (reference: 1SNA910707T0100) complete the tightening by applying a torque of 17 N.m.

* The specifications and drawings given are subject to change and are not binding unless confirmed by our specialists.
**Installation and maintenance**

**Fixing of push buttons**

C16BLE-C16CLE-C16BLEP-C16CLEP

---

**Step 3′**: (lamp) *(Ignore this step if the lamp isn’t used or if it’s installed by factory)*

Put the lamp in the lamp/led puller for E10 and E14 socket: reference 1SNA910713T2600

Insert the assembly into the socket of the switch taking care to center on the thread. Screw gently clockwise. Remove the lamp/led puller.

---

**Step 4**:  

Set up the button in abutment of the mechanical transmission part. /!\ A single direction of assembly

---

* The specifications and drawings given are subject to change and are not binding unless confirmed by our specialists.
Installation and maintenance

Fixing of push buttons C16B

The standard device can be fitted on a 2 to 4 mm thick panel.

The product is fixed to the panel through a central nut. 2 people are recommended to fix correctly the push-button: a person behind the panel to guide and maintain the product, the other one to set up the escutcheon plate, the central nut and then tighten the push-button.

**Step 0 (preparation):**

Separate all the components of the front part of the push button as presented below.

![Components of the front part of the push button](image)

**Step 1:**

Position the push button at the rear of the panel by respecting the orientation* and take care of the right alignment with the drill hole. Tighten the push button with the mounting wrench (reference: 1SNA357099R0400) and take care of the right adjustment of its position.

* Normal orientation of the push buttons:

View from the back of the push button, the contacts located at the right have odd marks and the contacts located at the left have even marks.

* The specifications and drawings given are subject to change and are not binding unless confirmed by our specialists.
Fixing of push buttons C16B

**Step 2:** *(We recommend to realize this step if the products can be subject to vibrations/seismic stresses. In other cases this step is facultative but recommended).*

With a calibrated torque wrench and , the torque wrench adapter (reference: 1SNA910703T0500), complete the tightening by applying a torque of 10 N.m.

**Step 3:**

Screw manually the command button.
Installation and maintenance

Fixing of push buttons C16C

The standard device can be fitted on a 2 to 4 mm thick panel.

The product is fixed to the panel through screws. 2 people are recommended to fix correctly the push-button: a person behind the panel to guide and maintain the product, the other one to set up the escutcheon plate, and then tighten the push-button.

**Step 0 (preparation):**

Separate all the components of the front part of the push button as presented below.

![Component Diagram]

**Step 1:**

Position the push button at the rear of the panel by respecting the orientation* and take care of the right alignment with the drill hole. Set up the screw with milled head and screw it with a torque screwdriver by applying a torque of 1,05 N.m.

* Normal orientation of the push buttons:

View from the back of the push button, the contacts located at the right have odd marks and the contacts located at the left have even marks.

* The specifications and drawings given are subject to change and are not binding unless confirmed by our specialists.
Installation and maintenance

Fixing of push buttons C16C

**Step 2:**

Set up the escutcheon plate and screw it them with a torque screwdriver by applying a torque of 1,05 N.m.
Installation and maintenance

Fixing of push buttons
C16BE-C16CE-C16BEP-C16CEP

The standard device can be fitted on a 2 to 4 mm thick panel.

The product is fixed to the panel through 2 fixing screws. 2 people are recommended to fix correctly the push-button: a person behind the panel to guide and maintain the product, the other one to set up the set bezel + protective plate, and then screw the push-button.

Step 0 (preparation):

Separate all the components of the front part of the push button as presented below.

- For push button type C16BE and C16CE, there is no protective plate, only recess bezel.

Step 1:

Insert the recess bezel in alignment with the drill holes. Position the push button at the rear of the panel by respecting the orientation* and take care of the right alignment with the threaded holes of the bezel. Set up the screws by the rear of the panel head and screw them with a torque screwdriver by applying a torque of 1,05 N.m.

* Normal orientation of the push buttons:

View from the back of the push button, the contacts located at the right have odd marks and the contacts located at the left have even marks.
Installation and maintenance

**Wiring of type C push buttons**

The standard wiring of these push buttons is realized with M3 screw and clamp. The maximal section of cable is 2,5mm².

A common practice is to set a fork terminal for M3 screw, 6,35mm large, on the cable. Insert it under the clamp and screw. We recommend a tightening torque of 0,6 N.m /\ Do not exceed 0,8 N.m : an excess of torque can cause the rotation of the fixed contact and consequently a bad continuity of the circuit.

We recommend to use a screwdriver flat tip Ø 4 in 5 mm.

*(Control periodically the torque and if needed tighten slightly)*

The cables can be wire with a rear cable outlet or a front wire outlet. In case of rear cable outlet, the product is equipped with a rear plate cutted (option PD : included in standard). The push button can also be equipped with a cable panel (option ST) in order to attach the cable with a collar.

*Pictures above are from TPL switches. The principle of wiring is identical on push buttons.*

**Maintenance of type C push buttons**

No special cleaning is required. Never use solvents, acids or any chemicals. Do not use sandpaper or other metal abrasive.

For the protection and maintenance of contacts, make sure that the protective cover is correctly installed.

After a few years of use, remove simply the dust with a vacuum cleaner or a wet fabric. Use only water to moisten slightly the fabric.

For the maintenance of escutcheon plates, bezels, protective plates or command buttons, use a fabric slightly moistened with a mixture of water and alcohol (type cleaning glasses)

* The specifications and drawings given are subject to change and are not binding unless confirmed by our specialists.