



### Main

|                               |                          |
|-------------------------------|--------------------------|
| Range of product              | Harmony XB4              |
| Product or component type     | Head for selector switch |
| Device short name             | ZB4                      |
| Bezel material                | Chromium plated metal    |
| Mounting diameter             | 22 mm                    |
| Head type                     | Standard                 |
| Sale per indivisible quantity | 1                        |
| Shape of signaling unit head  | Round                    |
| Type of operator              | Stay put                 |
| Operator profile              | Black standard handle    |
| Operator position information | 2 positions 90°          |

### Complementary

|                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CAD overall width                  | 29 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| CAD overall height                 | 29 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| CAD overall depth                  | 44 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Net weight                         | 0.04 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Resistance to high pressure washer | 7000000 Pa at 55 °C, distance : 0.1 m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Mechanical durability              | 1000000 cycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Electrical composition code        | C3 for <6 contacts using single blocks in front mounting<br>C4 for <6 contacts using single and double blocks in front mounting<br>C5 for <5 contacts using single blocks in front mounting<br>C6 for <5 contacts using single and double blocks in front mounting<br>C7 for <4 contacts using single blocks in front mounting<br>C8 for <4 contacts using single and double blocks in front mounting<br>C11 for <3 contacts using single blocks in front mounting<br>C15 for <1 contacts using single blocks in front mounting |
| Device presentation                | Basic element                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

### Environment

|                                       |                                                                                                                                         |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Protective treatment                  | TH                                                                                                                                      |
| Ambient air temperature for storage   | -40...70 °C                                                                                                                             |
| Ambient air temperature for operation | -40...70 °C                                                                                                                             |
| Overvoltage category                  | Class I conforming to IEC 60536                                                                                                         |
| IP degree of protection               | IP67 conforming to IEC 60529<br>IP69<br>IP69K                                                                                           |
| NEMA degree of protection             | NEMA 13<br>NEMA 4X                                                                                                                      |
| IK degree of protection               | IK06 conforming to IEC 50102                                                                                                            |
| Standards                             | JIS C8201-5-1<br>EN/IEC 60947-5-1<br>EN/IEC 60947-5-4<br>EN/IEC 60947-1<br>CSA C22.2 No 14<br>EN/IEC 60947-5-5<br>UL 508<br>JIS C8201-1 |

|                        |                                                                                                                                                                                |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product certifications | BV<br>LROS (Lloyds register of shipping)<br>DNV<br>UL listed<br>CSA<br>RINA<br>GL                                                                                              |
| Vibration resistance   | 5 gn (f= 2...500 Hz) conforming to IEC 60068-2-6                                                                                                                               |
| Shock resistance       | 30 gn (duration = 18 ms) for half sine wave acceleration conforming to IEC 60068-2-27<br>50 gn (duration = 11 ms) for half sine wave acceleration conforming to IEC 60068-2-27 |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Weight             | 44 g    |
| Package 1 Height             | 5.2 cm  |
| Package 1 width              | 3.4 cm  |
| Package 1 Length             | 5.4 cm  |
| Unit Type of Package 2       | BB1     |
| Number of Units in Package 2 | 5       |
| Package 2 Weight             | 221 g   |
| Package 2 Height             | 5.2 cm  |
| Package 2 width              | 3.4 cm  |
| Package 2 Length             | 26.5 cm |

## Offer Sustainability

|                            |                                                                                                |
|----------------------------|------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                          |
| REACH Regulation           | <a href="#">REACH Declaration</a>                                                              |
| REACH free of SVHC         | Yes                                                                                            |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a> |
| Toxic heavy metal free     | Yes                                                                                            |
| Mercury free               | Yes                                                                                            |
| RoHS exemption information | <a href="#">Yes</a>                                                                            |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</a>                                                         |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>                                                  |
| Circularity Profile        | <a href="#">End Of Life Information</a>                                                        |

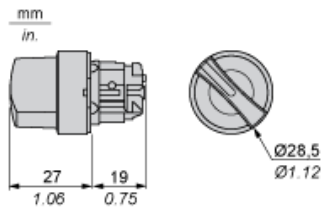
## Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

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Dimensions

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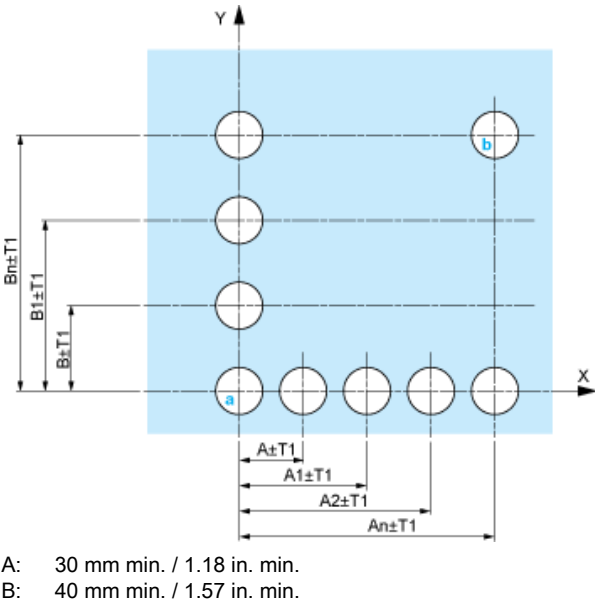


Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)

| Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board                                                                                                                                                                                                                                             | Connection by Faston Connectors |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
|                                                                                                                                                                                                                                                                                                                                   |                                 |
| <div> (1) Diameter on finished panel or support<br/> (2) 40 mm min. / 1.57 in. min.<br/> (3) 30 mm min. / 1.18 in. min.<br/> (4) Ø 22.5 mm / 0.89 in. recommended (Ø 22.3 mm <sub>0</sub><sup>+0.4</sup> / 0.88 in. <sub>0</sub><sup>+0.016</sup>)<br/> (5) 45 mm min. / 1.78 in. min.<br/> (6) 32 mm min. / 1.26 in. min. </div> |                                 |

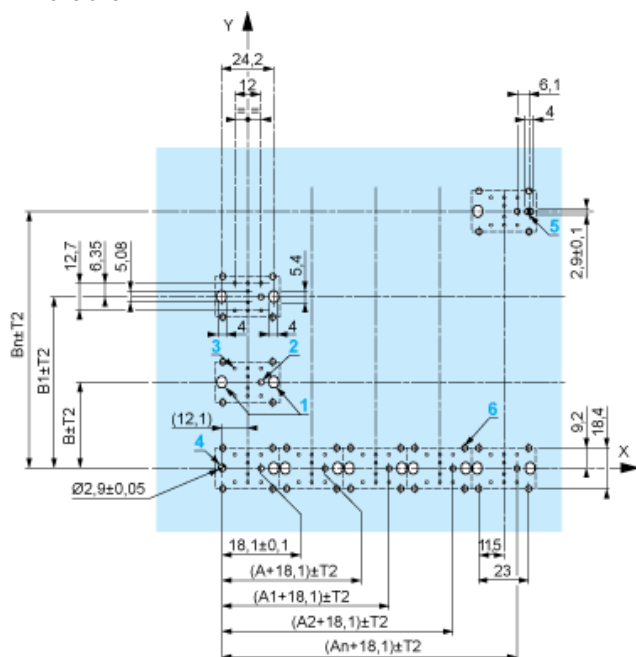
Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

Panel Cut-outs (Viewed from Installer's Side)



### Printed Circuit Board Cut-outs (Viewed from Electrical Block Side)

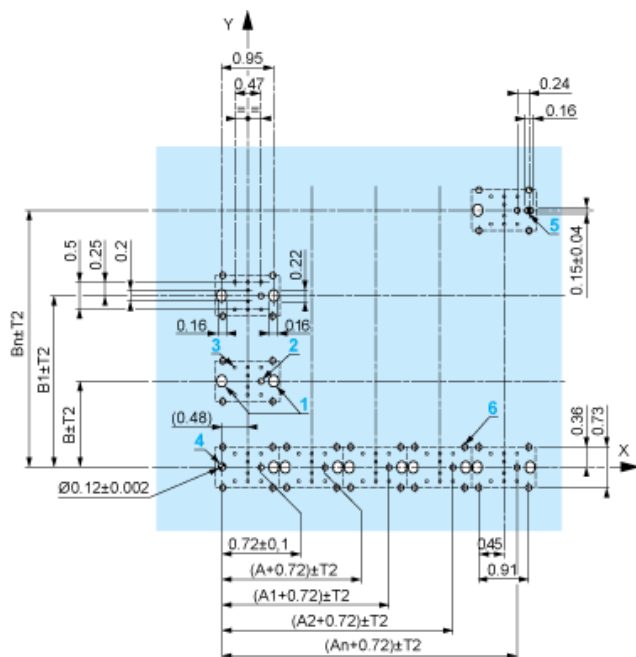
Dimensions in mm



A: 30 mm min.

B: 40 mm min.

Dimensions in in.



A: 1.18 in. min.

B: 1.57 in. min.

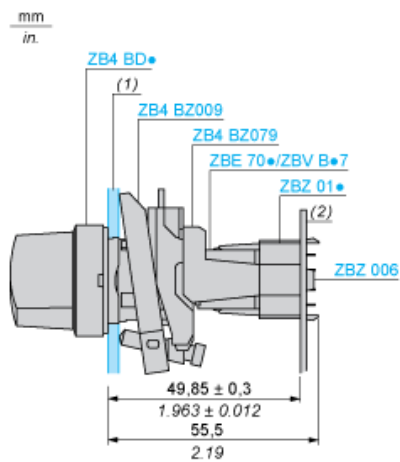
## General Tolerances of the Panel and Printed Circuit Board

The cumulative tolerance must not exceed 0.3 mm / 0.012 in:  $T1 + T2 = 0.3 \text{ mm max.}$

## Installation Precautions

- Minimum thickness of circuit board: 1.6 mm / 0.06 in.
- Cut-out diameter: 22.4 mm  $\pm$  0.1 / 0.88 in.  $\pm$  0.004
- Orientation of body/fixing collar ZB4 BZ009:  $\pm 2^{\circ} 30'$  (excluding cut-outs marked a and b).
- Tightening torque of screws ZBZ 006: 0.6 N.m (5.3 lbf.in) max.
- Allow for one ZB4 BZ079 fixing collar/pillar and its fixing screws:
  - every 90 mm / 3.54 in. horizontally (X), and 120 mm / 4.72 in. vertically (Y).
  - with each selector switch head (ZB4 BD\*, ZB4 BJ\*, ZB4 BG\*).

The fixing centers marked a and b are diagonally opposed and must align with those marked 4 and 5.



- (1) Panel  
(2) Printed circuit board

### Mounting of Adapter (Socket) ZBZ 01•

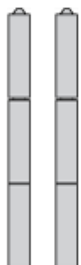
- 1 2 elongated holes for ZBZ 006 screw access
- 2 1 hole  $\varnothing 2.4 \text{ mm} \pm 0.05 / 0.09 \text{ in.} \pm 0.002$  for centring adapter ZBZ 01•
- 3 8 ×  $\varnothing 1.2 \text{ mm} / 0.05 \text{ in.}$  holes
- 4 1 hole  $\varnothing 2.9 \text{ mm} \pm 0.05 / 0.11 \text{ in.} \pm 0.002$ , for aligning the printed circuit board (with cut-out marked a)
- 5 1 elongated hole for aligning the printed circuit board (with cut-out marked b)
- 6 4 holes  $\varnothing 2.4 \text{ mm} / 0.09 \text{ in.}$  for clipping in adapter ZBZ 01•

Dimensions An + 18.1 relate to the  $\varnothing 2.4 \text{ mm} \pm 0.05 / 0.09 \text{ in.} \pm 0.002$  holes for centring adapter ZBZ 01•.

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Electrical Composition Corresponding to Code C3

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Electrical Composition Corresponding to Code C4

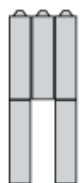
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Electrical Composition Corresponding to Code C5

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Electrical Composition Corresponding to Code C6

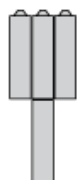
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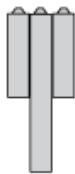
Electrical Composition Corresponding to Code C7

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## Electrical Composition Corresponding to Code C8

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## Electrical Composition Corresponding to Codes C9, C11, SF1 and SR1

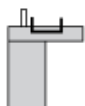
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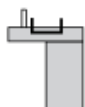
## Electrical Composition Corresponding to Code C15

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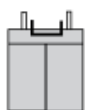
1 N/O



1 N/C



1 N/O + N/C or 1 N/O + N/O or 1 N/C + N/C



## Legend

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Single contact



Double contact



Light block



Possible location





## Sequence of Contacts Fitted to 2-position Selector Switch Body

### Position 315°



|          |          |        |        |        |      |
|----------|----------|--------|--------|--------|------|
| Push     | Position | Top    |        |        |      |
| Bottom   | ▲        | ▲      | ▲      |        |      |
| Location |          | Left   | Centre | Right  |      |
| State    |          | 0      | 0      | 0      |      |
| Contacts | N/O      |        | open   | open   | open |
| N/C      |          | closed | closed | closed |      |

### Position 45°



|          |          |      |        |        |        |
|----------|----------|------|--------|--------|--------|
| Push     | Position | Top  |        |        |        |
| Bottom   |          |      |        |        |        |
| Location |          | Left | Centre | Right  |        |
| State    |          | 1    | 1      | 1      |        |
| Contacts | N/O      |      | closed | closed | closed |
| N/C      |          | open | open   | open   |        |