



## Main

|                                 |                                      |
|---------------------------------|--------------------------------------|
| Range of product                | Harmony XB4                          |
| Product or component type       | Head for non-illuminated push-button |
| Device short name               | ZB4                                  |
| Bezel material                  | Chromium plated metal                |
| Mounting diameter               | 22 mm                                |
| Sale per indivisible quantity   | 1                                    |
| Head type                       | Standard                             |
| Shape of signaling unit head    | Round                                |
| Type of operator                | spring return                        |
| Operator profile                | 6 colors choice flush, unmarked      |
| Operator additional information | With set of 6 color cap              |

## Complementary

|                             |                                                                                                                                                                                                                                                           |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CAD overall width           | 29 mm                                                                                                                                                                                                                                                     |
| CAD overall height          | 29 mm                                                                                                                                                                                                                                                     |
| CAD overall depth           | 28 mm                                                                                                                                                                                                                                                     |
| Mechanical durability       | 10000000 cycles                                                                                                                                                                                                                                           |
| Electrical composition code | C1 for <9 contacts using single blocks in front mounting<br>C2 for <9 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   | IP66 conforming to IEC 60529<br>IP67<br>IP69<br>IP69K                                                                                                                          |
| NEMA degree of protection | NEMA 13<br>NEMA 4X                                                                                                                                                             |
| IK degree of protection   | IK06 conforming to IEC 50102                                                                                                                                                   |
| Standards                 | EN/IEC 60947-5-1<br>UL 508<br>JIS C8201-5-1<br>EN/IEC 60947-5-4<br>EN/IEC 60947-1<br>EN/IEC 60947-5-5<br>CSA C22.2 No 14<br>JIS C8201-1                                        |
| Product certifications    | CSA<br>BV<br>UL listed<br>GL<br>LROS (Lloyds register of shipping)<br>DNV<br>RINA                                                                                              |
| 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             | 35 g     |
| Package 1 Height             | 3.4 cm   |
| Package 1 width              | 5.4 cm   |
| Package 1 Length             | 8.8 cm   |
| Unit Type of Package 2       | BB1      |
| Number of Units in Package 2 | 5        |
| Package 2 Weight             | 185 g    |
| Package 2 Height             | 3.4 cm   |
| Package 2 width              | 8.8 cm   |
| Package 2 Length             | 26.5 cm  |
| Unit Type of Package 3       | S03      |
| Number of Units in Package 3 | 150      |
| Package 3 Weight             | 6.028 kg |
| Package 3 Height             | 30 cm    |
| Package 3 width              | 30 cm    |
| Package 3 Length             | 40 cm    |

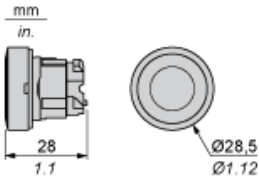
## Offer Sustainability

|                            |                                                                                                   |
|----------------------------|---------------------------------------------------------------------------------------------------|
| 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)<br><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>                                                     |

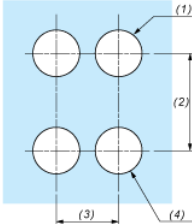
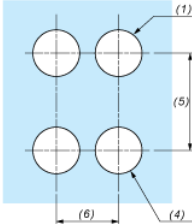
Contractual warranty

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

Dimensions

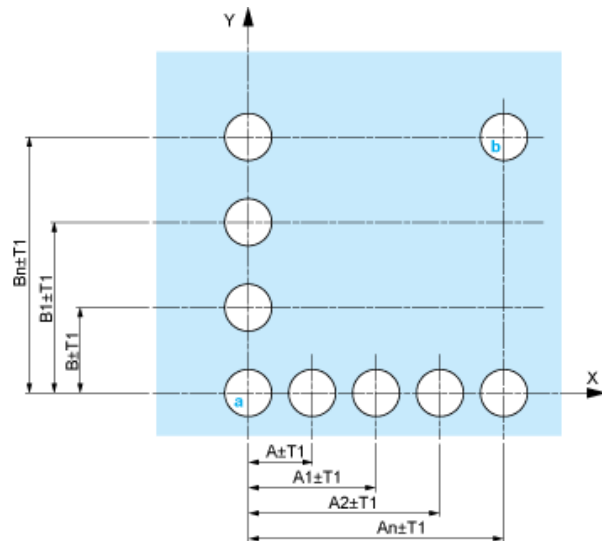


Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)

| 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</div> <div>(2) 40 mm min. / 1.57 in. min.</div> <div>(3) 30 mm min. / 1.18 in. min.</div> <div>(4) Ø 22.5 mm / 0.89 in. recommended (Ø 22.3 mm <math>_{0}^{+0.4}</math> / 0.88 in. <math>_{0}^{+0.016}</math>)</div> <div>(5) 45 mm min. / 1.78 in. min.</div> <div>(6) 32 mm min. / 1.26 in. min.</div> |                                                                                    |

Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

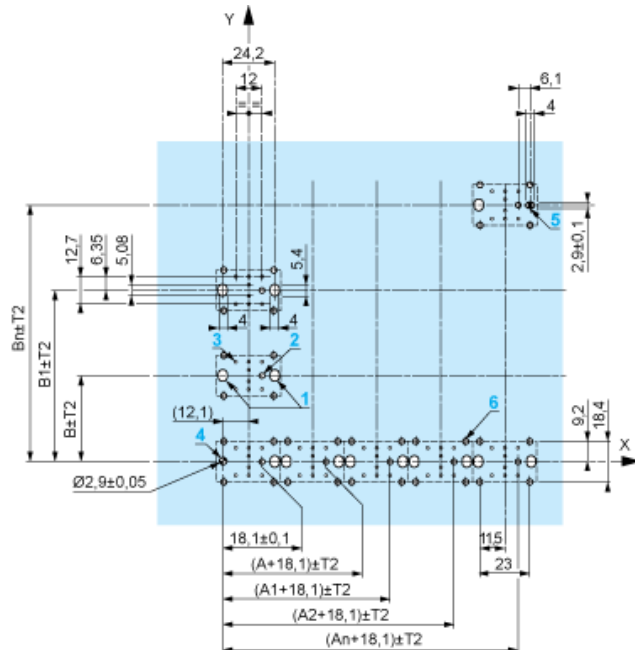
Panel Cut-outs (Viewed from Installer's Side)



- A: 30 mm min. / 1.18 in. min.  
B: 40 mm min. / 1.57 in. min.

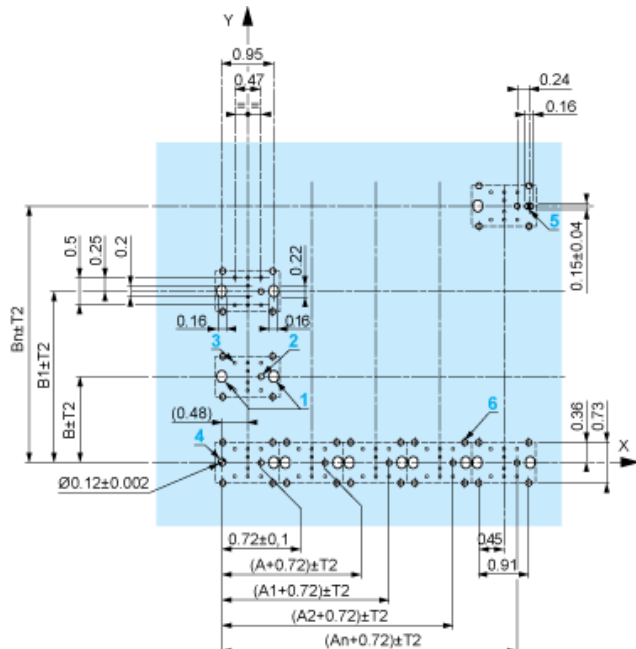
Printed Circuit Board Cut-outs (Viewed from Electrical Block Side)

Dimensions in mm



- A: 30 mm min.  
B: 40 mm min.

Dimensions in in.



A: 1.18 in. min.

B: 1.57 in. min.

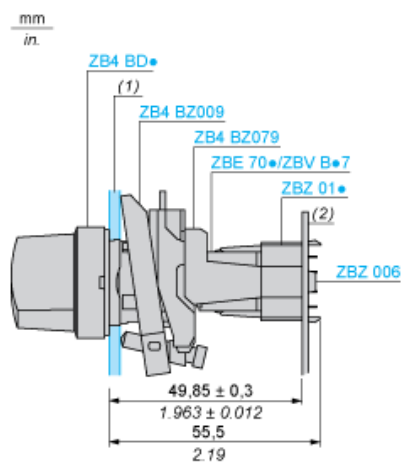
## General Tolerances of the Panel and Printed Circuit Board

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 mm  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 for centring adapter ZBZ 01•
- 3 8  $\times$   $\varnothing$  1.2 mm / 0.05 in. holes
- 4 1 hole  $\varnothing$  2.9 mm  $\pm$  0.05 / 0.11 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 mm / 0.09 in. for clipping in adapter ZBZ 01•

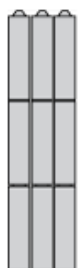
Dimensions An + 18.1 relate to the  $\varnothing$  2.4 mm  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 holes for centring adapter ZBZ 01•.



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Electrical Composition Corresponding to Code C1

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Electrical Composition Corresponding to Code C2



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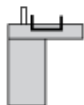
Electrical Composition Corresponding to Codes C9, C11, SF1 and SR1

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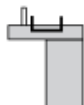


Electrical Composition Corresponding to Code C15

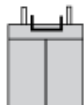
1 N/O



1 N/C



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



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Legend

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Single contact



Double contact



Light block



Possible location

