

# Product datasheet

Specifications



green flush/red projecting  
illuminated double-headed  
pushbutton Ø22 1NO+1NC 120V

Local distributor code: 393523511    XB4BW73731G5

## Main

|                           |                                                                              |
|---------------------------|------------------------------------------------------------------------------|
| Range of product          | Harmony XB4                                                                  |
| Product or component type | Illuminated double-headed push-button                                        |
| Device short name         | XB4                                                                          |
| Bezel material            | Chromium plated metal                                                        |
| Head type                 | Standard                                                                     |
| Mounting diameter         | 22 mm                                                                        |
| Colour of marking         | White marking when green, red or black caps<br>Black marking when white caps |
| Light source              | Protected LED                                                                |
| Light source colour       | White                                                                        |
| Device presentation       | Complete product                                                             |

## Complementary

|                                    |                                                                                                         |
|------------------------------------|---------------------------------------------------------------------------------------------------------|
| Fixing collar material             | Zamak                                                                                                   |
| Net weight                         | 0.13 kg                                                                                                 |
| Resistance to high pressure washer | 7000000 Pa at 55 °C, distance : 0.1 m                                                                   |
| Shape of signaling unit head       | Rectangular                                                                                             |
| Type of operator                   | spring return                                                                                           |
| Operator profile                   | 1 flush - 1 projecting push-buttons - 1 central pilot light                                             |
| Operators description              | Green "I" - red "O"                                                                                     |
| Operator profile                   | Green flush, I (white)<br>Red projecting, O (white)                                                     |
| Contacts type and composition      | 1 NO + 1 NC                                                                                             |
| Contact operation                  | Slow-break                                                                                              |
| Contacts usage                     | Standard contacts                                                                                       |
| Positive opening                   | With conforming to EN/IEC 60947-5-1 appendix K                                                          |
| Operating travel                   | 1.5 mm (NC changing electrical state)<br>2.6 mm (NO changing electrical state)<br>4.3 mm (total travel) |
| Operating force                    | 3.5 N NC changing electrical state<br>3.8 N NO changing electrical state                                |

|                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Mechanical durability</b>                       | 1000000 cycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Connections - terminals</b>                     | Screw clamp terminals, <= 2 x 1.5 mm² with cable end conforming to EN/IEC 60947-1<br>Screw clamp terminals, >= 1 x 0.22 mm² without cable end conforming to EN/IEC 60947-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Tightening torque</b>                           | 0.8...1.2 N.m conforming to EN 60947-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Shape of screw head</b>                         | Cross compatible with JIS No 1 screwdriver<br>Cross compatible with Philips no 1 screwdriver<br>Cross compatible with pozidriv No 1 screwdriver<br>Slotted compatible with flat Ø 4 mm screwdriver<br>Slotted compatible with flat Ø 5.5 mm screwdriver                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Contacts material</b>                           | Silver alloy (Ag/Ni)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Short-circuit protection</b>                    | 10 A cartridge fuse type gG conforming to EN/IEC 60947-5-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>[Ith] conventional free air thermal current</b> | 10 A conforming to EN/IEC 60947-5-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>[Ui] rated insulation voltage</b>               | 600 V (pollution degree 3) conforming to EN 60947-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>[Uimp] rated impulse withstand voltage</b>      | 6 kV conforming to EN 60947-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>[Ie] rated operational current</b>              | 3 A at 240 V, AC-15, A600 conforming to EN/IEC 60947-5-1<br>6 A at 120 V, AC-15, A600 conforming to EN/IEC 60947-5-1<br>0.1 A at 600 V, DC-13, Q600 conforming to EN/IEC 60947-5-1<br>0.27 A at 250 V, DC-13, Q600 conforming to EN/IEC 60947-5-1<br>0.55 A at 125 V, DC-13, Q600 conforming to EN/IEC 60947-5-1<br>1.2 A at 600 V, AC-15, A600 conforming to EN/IEC 60947-5-1                                                                                                                                                                                                                                                                            |
| <b>Electrical durability</b>                       | 1000000 cycles, AC-15, 2 A at 230 V, operating rate <3600 cyc/h, load factor: 0.5 conforming to EN/IEC 60947-5-1 appendix C<br>1000000 cycles, AC-15, 3 A at 120 V, operating rate <3600 cyc/h, load factor: 0.5 conforming to EN/IEC 60947-5-1 appendix C<br>1000000 cycles, AC-15, 4 A at 24 V, operating rate <3600 cyc/h, load factor: 0.5 conforming to EN/IEC 60947-5-1 appendix C<br>1000000 cycles, DC-13, 0.2 A at 110 V, operating rate <3600 cyc/h, load factor: 0.5 conforming to EN/IEC 60947-5-1 appendix C<br>1000000 cycles, DC-13, 0.5 A at 24 V, operating rate <3600 cyc/h, load factor: 0.5 conforming to EN/IEC 60947-5-1 appendix C |
| <b>Electrical reliability</b>                      | $\Lambda < 10\exp(-6)$ at 5 V and 1 mA in clean environment conforming to EN/IEC 60947-5-4<br>$\Lambda < 10\exp(-8)$ at 17 V and 5 mA in clean environment conforming to EN/IEC 60947-5-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Signalling type</b>                             | Steady                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Bulb base</b>                                   | Integral LED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>[Us] rated supply voltage</b>                   | 110...120 V AC at 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Current consumption</b>                         | 14 mA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Service life</b>                                | 100000 h at rated voltage and 25 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Surge withstand</b>                             | 1 kV conforming to IEC 61000-4-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Compatibility code</b>                          | XB4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

## Environment

|                                              |                                                                                               |
|----------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Protective treatment</b>                  | TH                                                                                            |
| <b>Ambient air temperature for storage</b>   | -40...70 °C                                                                                   |
| <b>Ambient air temperature for operation</b> | -40...70 °C                                                                                   |
| <b>Electrical shock protection class</b>     | Class I conforming to IEC 60536                                                               |
| <b>IP degree of protection</b>               | IP66 conforming to IEC 60529<br>IP69K conforming to IEC 60529<br>IP69 conforming to IEC 60529 |
| <b>NEMA degree of protection</b>             | NEMA 13<br>NEMA 4X                                                                            |
| <b>IK degree of protection</b>               | IK06 conforming to IEC 50102                                                                  |
| <b>Standards</b>                             | EN/IEC 60947-5-5<br>CSA C22.2 No 14<br>EN/IEC 60947-5-1<br>UL 508                             |

|                                       |                                                                                                                                                                                |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                       | EN/IEC 60947-1<br>EN/IEC 60947-5-4<br>JIS C8201-5-1<br>JIS C8201-1                                                                                                             |
| Product certifications                | GL<br>BV<br>DNV<br>LROS (Lloyds register of shipping)<br>UL listed<br>CSA                                                                                                      |
| 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 |
| Resistance to fast transients         | 2 kV conforming to IEC 61000-4-4                                                                                                                                               |
| Resistance to electromagnetic fields  | 10 V/m conforming to IEC 61000-4-3                                                                                                                                             |
| Resistance to electrostatic discharge | 6 kV on contact (on metal parts) conforming to IEC 61000-4-2<br>8 kV in free air (in insulating parts) conforming to IEC 61000-4-2                                             |
| Electromagnetic emission              | Class B conforming to IEC 55011                                                                                                                                                |

### Packing Units

|                              |           |
|------------------------------|-----------|
| Unit Type of Package 1       | PCE       |
| Number of Units in Package 1 | 1         |
| Package 1 Weight             | 124.0 g   |
| Package 1 Height             | 3.2 cm    |
| Package 1 width              | 5.4 cm    |
| Package 1 Length             | 8.2 cm    |
| Unit Type of Package 2       | S03       |
| Number of Units in Package 2 | 100       |
| Package 2 Weight             | 12.918 kg |
| Package 2 Height             | 30 cm     |
| Package 2 width              | 30 cm     |
| Package 2 Length             | 40 cm     |
| Package 3 Height             | 30 cm     |

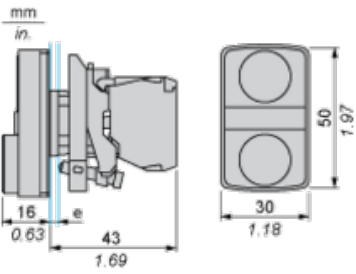
### Offer Sustainability

|                            |                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 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>                           |
| 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>                                                                                     |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

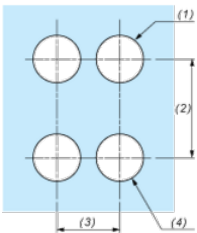
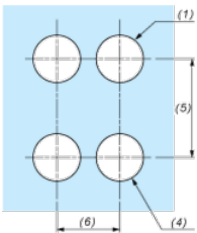
### Contractual warranty

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

Dimensions

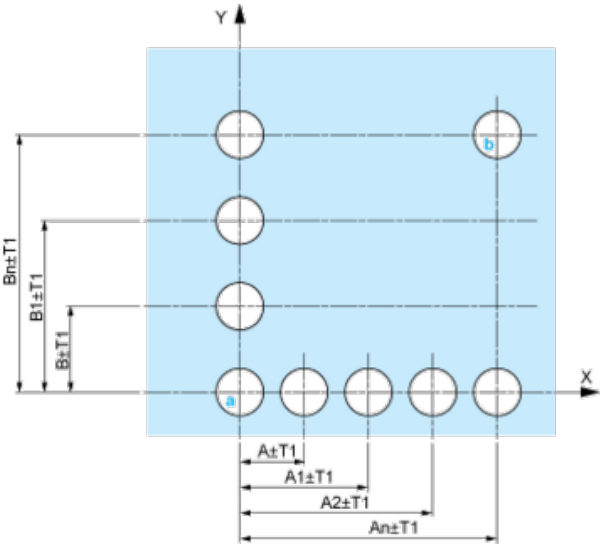


Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)

| 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 <sup>+0.4</sup><sub>0</sub> / 0.88 in. <sup>+0.016</sup><sub>0</sub>)</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

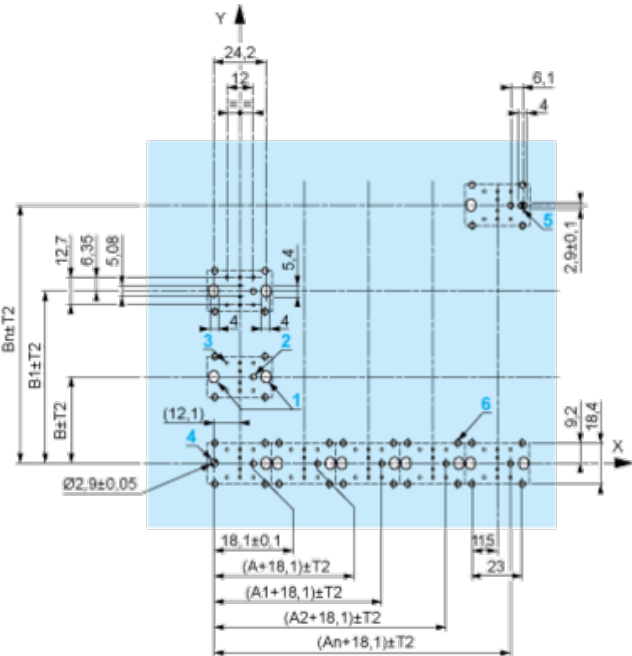
Panel Cut-outs (Viewed from Installer’s Side)



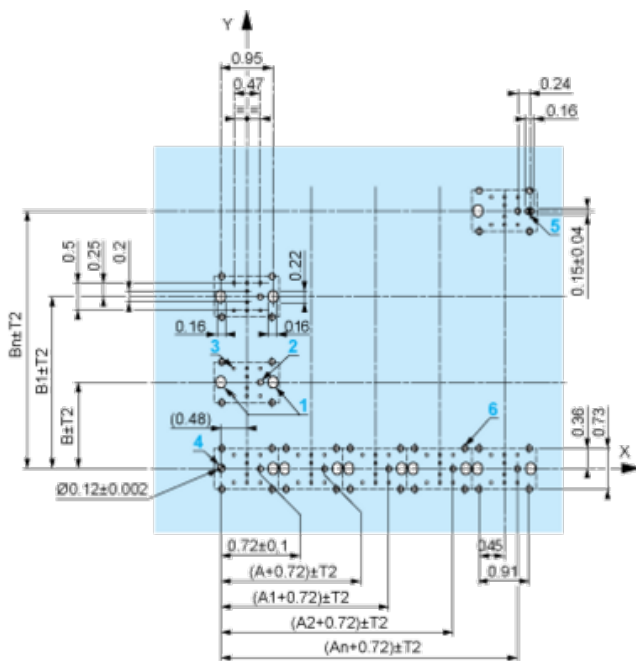
- A: 30 mm min. / 1.18 in. min.  
B: 40 mm min. / 1.57 in. min.

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.

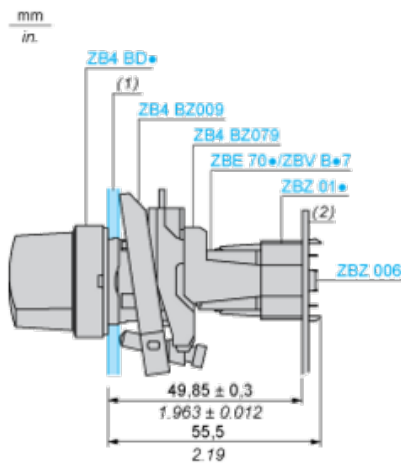
### General Tolerances of the Panel and Printed Circuit Board

The cumulative tolerance must not exceed 0.3 mm / 0.012 in: T1 + T2 = 0.3 mm max.

### Installation Precautions

- Minimum thickness of circuit board: 1.6 mm / 0.06 in.
- Cut-out diameter: 22.4 mm ± 0.1 / 0.88 in. ± 0.004
- Orientation of body/fixing collar ZB4 BZ009: ± 2° 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 Ø 2.4 mm ± 0.05 / 0.09 in. ± 0.002 for centring adapter ZBZ 01•
- 3 8 × Ø 1.2 mm / 0.05 in. holes
- 4 1 hole Ø 2.9 mm ± 0.05 / 0.11 in. ± 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 Ø 2.4 mm / 0.09 in. for clipping in adapter ZBZ 01•

Dimensions An + 18.1 relate to the Ø 2.4 mm ± 0.05 / 0.09 in. ± 0.002 holes for centring adapter ZBZ 01•.