



❗ Discontinued

## Commercial status

Discontinued on: 29 January 2021

## Main

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range of product              | Harmony XB4                                                                                                                                                                                                                                                                                                                                                                                                            |
| Product or component type     | Triple-headed push-button                                                                                                                                                                                                                                                                                                                                                                                              |
| Device short name             | XB4                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Bezel material                | Chromium plated metal                                                                                                                                                                                                                                                                                                                                                                                                  |
| Fixing collar material        | Zamak                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Head type                     | Standard                                                                                                                                                                                                                                                                                                                                                                                                               |
| Mounting diameter             | 22 mm                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Shape of signaling unit head  | Rectangular                                                                                                                                                                                                                                                                                                                                                                                                            |
| Type of operator              | spring return                                                                                                                                                                                                                                                                                                                                                                                                          |
| Operator profile              | 2 flush - 1 central projecting STOP push-buttons                                                                                                                                                                                                                                                                                                                                                                       |
| Operators description         | White "right arrow" - white "left arrow" - red "STOP"                                                                                                                                                                                                                                                                                                                                                                  |
| Contacts type and composition | 1 NO + 1 NC                                                                                                                                                                                                                                                                                                                                                                                                            |
| Contact operation             | Slow-break                                                                                                                                                                                                                                                                                                                                                                                                             |
| Connections - terminals       | Screw clamp terminals, $\leq 2 \times 1.5 \text{ mm}^2$ with cable end conforming to EN/IEC 60947-1<br>Screw clamp terminals, $\geq 1 \times 0.22 \text{ mm}^2$ without cable end conforming to EN/IEC 60947-1<br>Spring terminals, $\leq 2 \times 1.5 \text{ mm}^2$ with cable end conforming to EN/IEC 60947-1<br>Spring terminals, $\geq 1 \times 0.22 \text{ mm}^2$ without cable end conforming to EN/IEC 60947-1 |

## Complementary

|                                    |                                                                                                     |
|------------------------------------|-----------------------------------------------------------------------------------------------------|
| Net weight                         | 0.128 kg                                                                                            |
| Resistance to high pressure washer | 7000000 Pa at 55 °C, distance : 0.1 m                                                               |
| Colour of marking                  | White marking when green, red or black caps<br>Black marking when white caps                        |
| Operator profile                   | Red projecting, STOP (white)<br>White flush, left arrow (black)<br>White flush, right arrow (black) |
| 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)                                                               |

|                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                          | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Mechanical durability                                    | 1000000 cycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Tightening torque                                        | 0.8...1.2 N.m conforming to EN 60947-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Shape of screw head                                      | 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                                                                                                                                                                                                                                                                                                                                                                                                   |
| Contacts material                                        | Silver alloy (Ag/Ni)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Short-circuit protection                                 | 10 A cartridge fuse type gG conforming to EN/IEC 60947-5-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| [I <sub>th</sub> ] conventional free air thermal current | 10 A conforming to EN/IEC 60947-5-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| [U <sub>i</sub> ] rated insulation voltage               | 600 V (pollution degree 3) conforming to EN 60947-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| [U <sub>imp</sub> ] rated impulse withstand voltage      | EN 60947-1 6 kV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| [I <sub>e</sub> ] rated operational current              | 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                                                                                                                                                                                                                                                                            |
| Electrical durability                                    | 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 |
| Electrical reliability                                   | $\Lambda < 10\exp(-6)$ 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Device presentation                                      | Complete product                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

## Environment

|                                       |                                                                                                                                         |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Protective treatment                  | TH                                                                                                                                      |
| Ambient air temperature for storage   | -40...70 °C                                                                                                                             |
| Ambient air temperature for operation | -25...70 °C                                                                                                                             |
| Electrical shock protection class     | Class I conforming to IEC 61140                                                                                                         |
| IP degree of protection               | IP69K conforming to IEC 60529<br>IP69 conforming to IEC 60529                                                                           |
| 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 60947-1<br>EN/IEC 60947-5-1<br>EN/IEC 60947-5-5<br>EN/IEC 60947-5-4<br>UL 508<br>CSA C22.2 No 14<br>JIS C8201-1 |
| Product certifications                | CSA<br>RINA<br>LROS (Lloyds register of shipping)<br>BV<br>DNV<br>UL listed<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                                                   |

### Packing Units

|                  |           |
|------------------|-----------|
| Package 1 Weight | 125.000 g |
| Package 1 Height | 8.600 cm  |
| Package 1 width  | 3.300 cm  |
| Package 1 Length | 5.300 cm  |

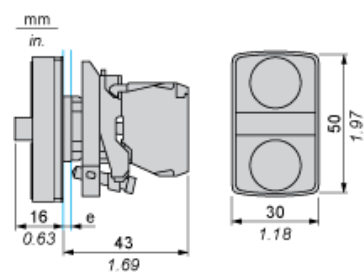
### Offer Sustainability

|                            |                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 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



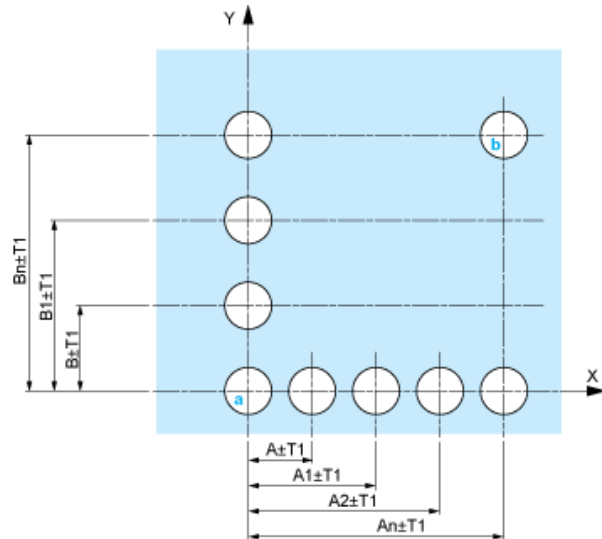
e : clamping thickness: 1 to 6 mm / 0.04 to 0.24 in.

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

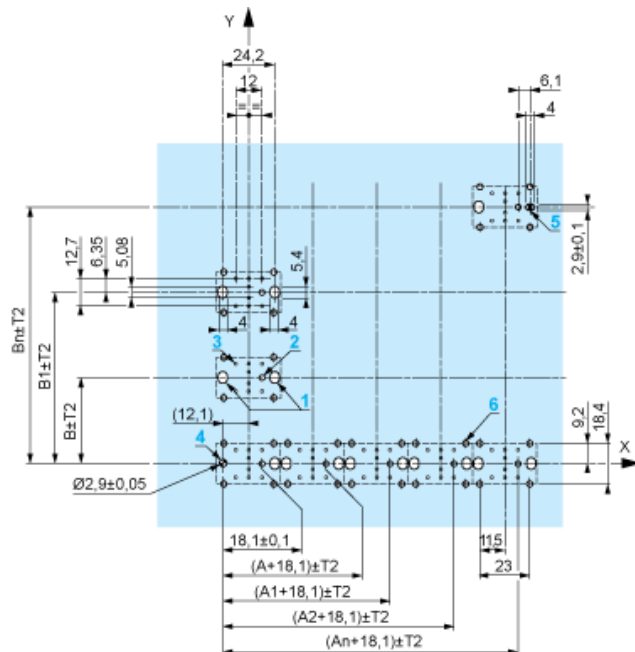
### Panel Cut-outs (Viewed from Installer's Side)



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.

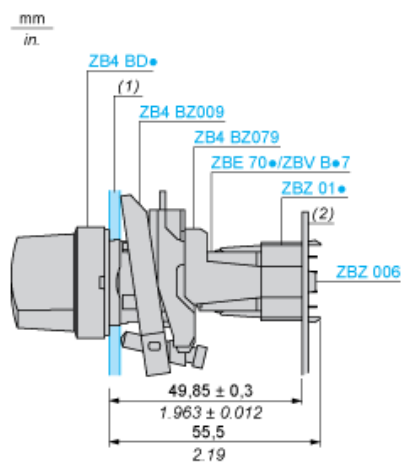
### General Tolerances of the Panel and Printed Circuit Board

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•.

### XB4BA711137 is replaced by the following product range:



#### Harmony XB4

$\varnothing$  22 mm modular metal pushbuttons, switches, and pilot lights

The modular range of  $\varnothing$  22 mm metal control and signaling units combines simplicity of installation, efficiency, modern design, flexibility, and robustness, high level of customization to meet most industrial applications

Reason for Substitution: End of life | Substitution date: 22 May 2020