

Product data sheet

Specifications



Harmony XB4, Double-headed push button, metal, Ø22, 1 green flush marked I + 1 red projecting marked O, 1 NO + 1 NC

XB4BL73415

Main

| | |
|-------------------------------|--|
| Range of product | Harmony XB4 |
| Product or component type | Double-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 | 1 flush - 1 projecting push-buttons |
| Operators description | Green "I" - red "O" |
| 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 Screw clamp terminals, $\geq 1 \times 0.22 \text{ mm}^2$ without cable end conforming to EN/IEC 60947-1 |

Complementary

| | |
|------------------------------------|---|
| Net weight | 0.116 kg |
| Resistance to high pressure washer | 7000000 Pa at 55 °C, distance : 0.1 m |
| Colour of marking | Black marking when white caps White marking when green, red or black caps |
| Operator profile | Green flush, I (white) Red projecting, O (white) |
| 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) 4.3 mm (total travel) |
| Operating force | 3.5 N NC changing electrical state 3.8 N NO changing electrical state |
| Mechanical durability | 1000000 cycles |
| Tightening torque | 0.8...1.2 N.m conforming to EN 60947-1 |

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|---|--|
| Shape of screw head | Cross compatible with JIS No 1 screwdriver Cross compatible with Philips no 1 screwdriver Cross compatible with pozidriv No 1 screwdriver Slotted compatible with flat Ø 4 mm screwdriver 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_{th}] conventional free air thermal current | 10 A conforming to EN/IEC 60947-5-1 |
| [U_i] rated insulation voltage | 600 V (pollution degree 3) conforming to EN 60947-1 |
| [U_{imp}] rated impulse withstand voltage | 6 kV conforming to EN 60947-1 |
| [I_e] rated operational current | 3 A at 240 V, AC-15, A600 conforming to EN/IEC 60947-5-1 6 A at 120 V, AC-15, A600 conforming to EN/IEC 60947-5-1 0.1 A at 600 V, DC-13, Q600 conforming to EN/IEC 60947-5-1 0.27 A at 250 V, DC-13, Q600 conforming to EN/IEC 60947-5-1 0.55 A at 125 V, DC-13, Q600 conforming to EN/IEC 60947-5-1 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/mn, load factor: 0.5 conforming to EN/IEC 60947-5-1: appendix C 1000000 cycles AC-15, 3 A at 120 V, operating rate <3600 cyc/mn, load factor: 0.5 conforming to EN/IEC 60947-5-1: appendix C 1000000 cycles AC-15, 4 A at 24 V, operating rate <3600 cyc/mn, load factor: 0.5 conforming to EN/IEC 60947-5-1: appendix C 1000000 cycles DC-13, 0.2 A at 110 V, operating rate <3600 cyc/mn, load factor: 0.5 conforming to EN/IEC 60947-5-1: appendix C 1000000 cycles DC-13, 0.5 A at 24 V, operating rate <3600 cyc/mn, 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 $\Lambda < 10\exp(-8)$ 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 | -40...70 °C |
| Electrical shock protection class | Class I conforming to IEC 60536 |
| IP degree of protection | IP67 conforming to IEC 60529 IP69 IP69K |
| NEMA degree of protection | NEMA 13 NEMA 4X |
| IK degree of protection | IK06 conforming to IEC 50102 |
| Standards | UL 508 JIS C8201-5-1 EN/IEC 60947-5-1 CSA C22.2 No 14 EN/IEC 60947-1 EN/IEC 60947-5-4 EN/IEC 60947-5-5 JIS C8201-1 |
| Product certifications | BV GL LROS (Lloyds register of shipping) DNV CSA UL listed |
| 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 50 gn (duration = 11 ms) for half sine wave acceleration conforming to IEC 60068-2-27 |

Packing Units

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|------------------------------|------------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Weight | 115.3 g |
| Package 1 Height | 3.4 cm |
| Package 1 width | 5.3 cm |
| Package 1 Length | 9 cm |
| Unit Type of Package 2 | S03 |
| Number of Units in Package 2 | 100 |
| Package 2 Weight | 11.947 kg |
| Package 2 Height | 30 cm |
| Package 2 width | 30 cm |
| Package 2 Length | 40 cm |
| Unit Type of Package 3 | P06 |
| Number of Units in Package 3 | 800 |
| Package 3 Weight | 103.574 kg |
| Package 3 Height | 75 cm |
| Package 3 width | 80 cm |
| Package 3 Length | 60 cm |

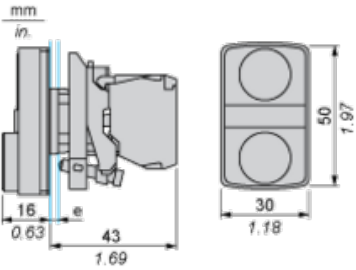
Offer Sustainability

| | |
|----------------------------|---|
| Sustainable offer status | Green Premium product |
| REACH free of SVHC | Yes |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |
| Mercury free | Yes |
| RoHS exemption information | Yes |
| China RoHS Regulation | China RoHS declaration |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | End of Life Information |
| WEEE | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| California proposition 65 | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov |

Contractual warranty

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| Warranty | 18 months |
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Dimensions

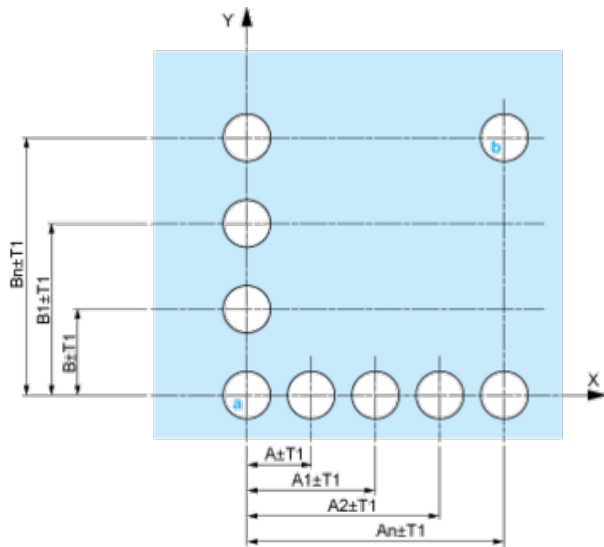


Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)

| Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board | Connection by Faston Connectors |
|---|--|
|  |  |
| <p>(1) Diameter on finished panel or support (2) 40 mm min. / 1.57 in. min. (3) 30 mm min. / 1.18 in. min. (4) \varnothing 22.5 mm / 0.89 in. recommended (\varnothing 22.3 mm $^{+0.4}_0$ / 0.88 in. $^{+0.016}_0$) (5) 45 mm min. / 1.78 in. min. (6) 32 mm min. / 1.26 in. min.</p> | |

Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

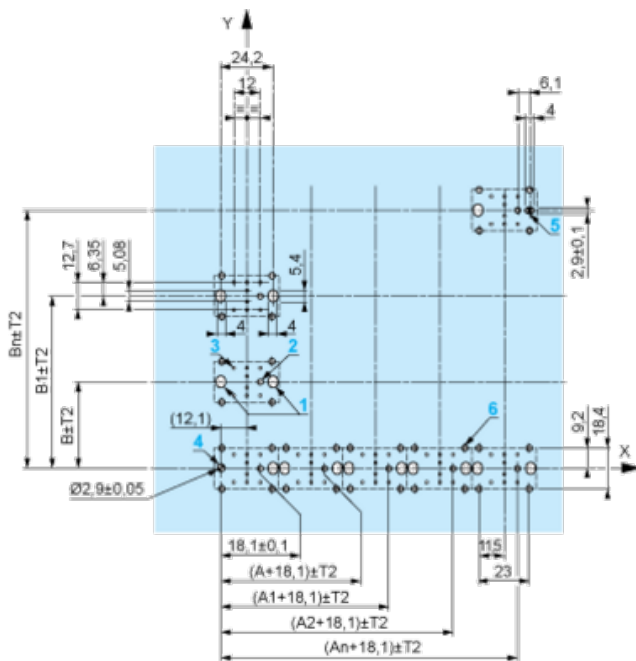
Panel Cut-outs (Viewed from Installer's Side)



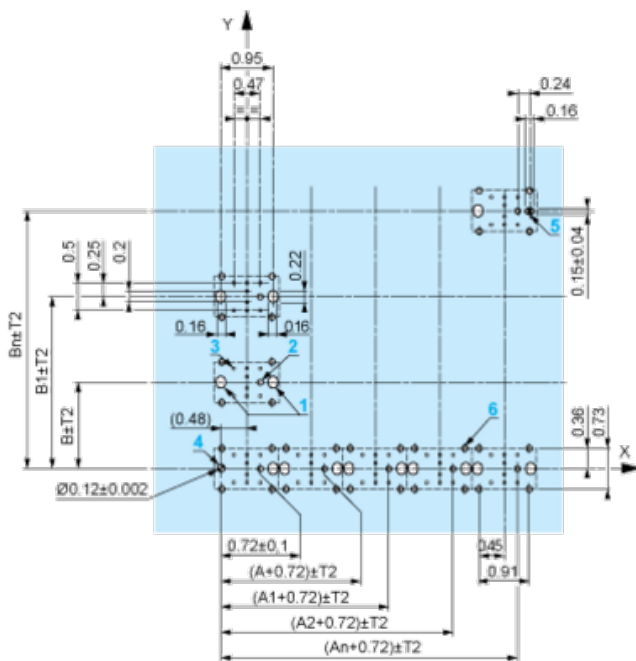
A: 30 mm min. / 1.18 in. min.
B: 40 mm min. / 1.57 in. min.

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.

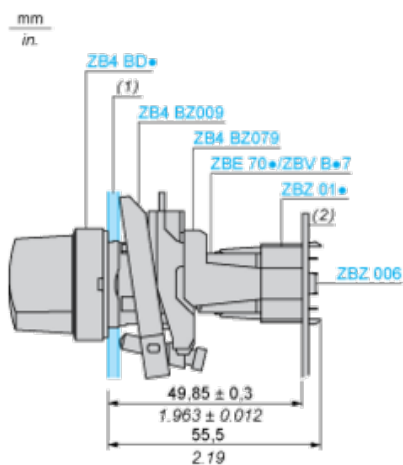
General Tolerances of the Panel and Printed Circuit Board

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•.