Product data sheet
Characteristics

XB4BL73415
Harmony XB4, Double-headed push button, metal, Ø22, 1 green flush marked I + 1 red projecting marked O, 1 NO + 1 NC

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, <= 2 x 1.5 mm² with cable end conforming- to EN/IEC 60947-1 Screw clamp terminals, >= 1 x 0.22 mm² 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

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
[Ith] conventional free air thermal current	10 A conforming to EN/IEC 60947-5-1
[Ui] rated insulation voltage	600 V (pollution degree 3) conforming to EN 60947-1
[Uimp] rated impulse withstand voltage	6 KV conforming to EN 60947-1
[Ie] 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	Λ < 10exp(-6) at 5 V and 1 mA in clean environment conforming to EN/IEC 60947-5-4 Λ < 10exp(-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

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

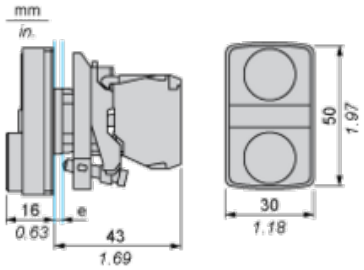
Offer Sustainability

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

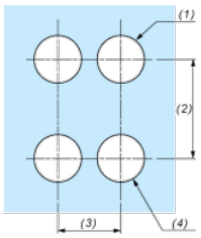
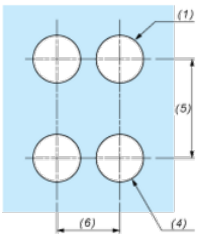
Contractual warranty

Warranty	18 months

Dimensions

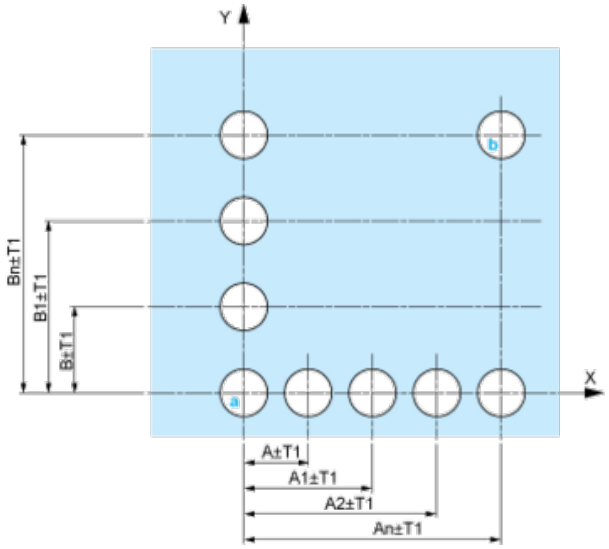


Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)

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

Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

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

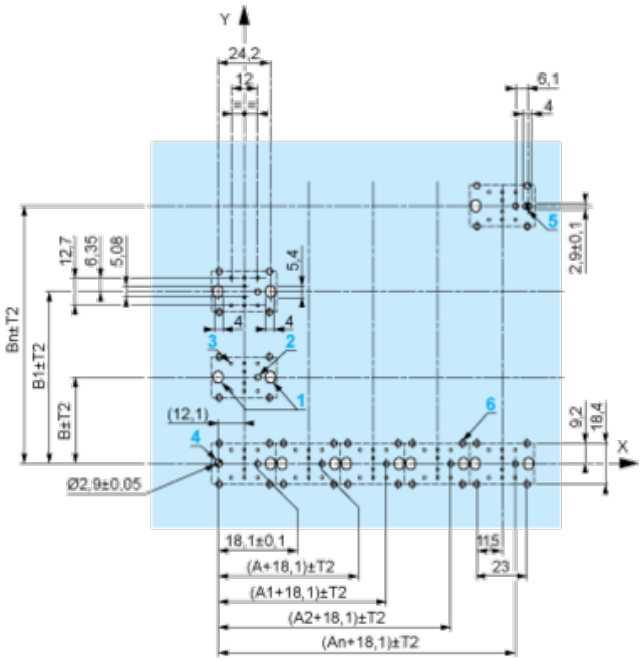


A: 30 mm min. / 1.18 in. min.

B: 40 mm min. / 1.57 in. min.

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

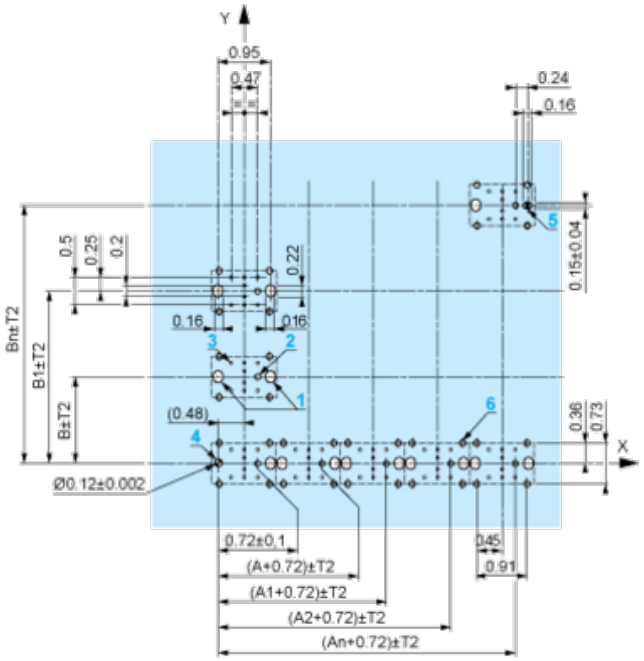
Dimensions in mm



A: 30 mm min.

B: 40 mm min.

Dimensions in in.



A: 1.18 in. min.

B: 1.57 in. min.

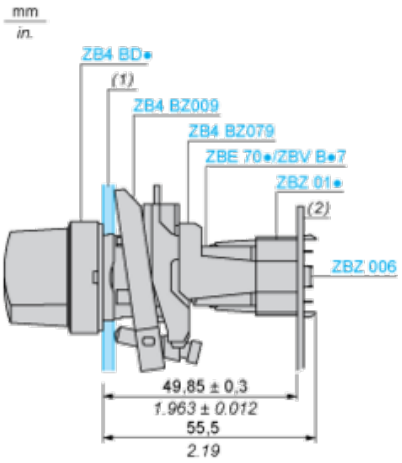
General Tolerances of the Panel and Printed Circuit Board

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•.

Product Life Status :	Commercialised