

# Product datasheet

Specifications



**Push button head, metal, projecting, yellow, Ø22, spring return, booted, unmarked**

**Local distributor code: 23707649 ZB4BP5**

## Main

**Range of product** Harmony XB4

**Product or component type** Head for non-illuminated push-button

**Device short name** ZB4

**Product compatibility** not compatible with legend holder

**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** Yellow projecting, unmarked

**Operator additional information** Clear boot

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

## Complementary

**CAD overall width** 30 mm

**CAD overall height** 30 mm

**CAD overall depth** 35 mm

**Mechanical durability** 10000000 cycles

**Electrical composition code**  
C1 for <9 contacts using single blocks in front mounting  
C2 for <9 contacts using single and double blocks in front mounting  
C11 for <3 contacts using single blocks in front mounting  
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

<b>NEMA degree of protection</b>	NEMA 13 NEMA 4X
<b>IK degree of protection</b>	IK06 conforming to IEC 50102
<b>Standards</b>	EN/IEC 60947-5-5 CSA C22.2 No 14 EN/IEC 60947-5-1 EN/IEC 60947-1 UL 508 EN/IEC 60947-5-4 JIS C8201-5-1 JIS C8201-1
<b>Product certifications</b>	GL CSA BV UL listed DNV LROS (Lloyds register of shipping)
<b>Vibration resistance</b>	5 gn (f= 2...500 Hz) conforming to IEC 60068-2-6
<b>Shock resistance</b>	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

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Weight</b>	32.0 g
<b>Package 1 Height</b>	3.4 cm
<b>Package 1 width</b>	4.5 cm
<b>Package 1 Length</b>	5.4 cm
<b>Unit Type of Package 2</b>	P06
<b>Number of Units in Package 2</b>	2400
<b>Package 2 Weight</b>	91.004 kg
<b>Package 2 Height</b>	77 cm
<b>Package 2 width</b>	60 cm
<b>Package 2 Length</b>	80 cm
<b>Unit Type of Package 3</b>	S03
<b>Number of Units in Package 3</b>	300
<b>Package 3 Weight</b>	10.108 kg
<b>Package 3 Height</b>	30 cm
<b>Package 3 width</b>	30 cm
<b>Package 3 Length</b>	40 cm

## Offer Sustainability

<b>Sustainable offer status</b>	Green Premium product
<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>
<b>REACH free of SVHC</b>	Yes
<b>EU RoHS Directive</b>	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
<b>Toxic heavy metal free</b>	Yes
<b>Mercury free</b>	Yes
<b>RoHS exemption information</b>	<a href="#">Yes</a>
<b>China RoHS Regulation</b>	<a href="#">China RoHS declaration</a>

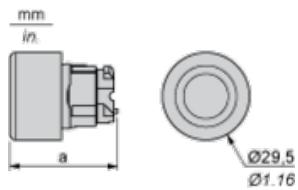
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**Contractual warranty****Warranty**

18 months

Dimensions

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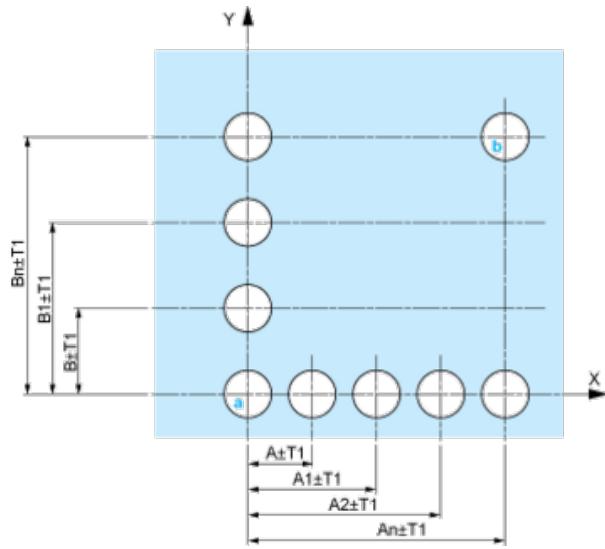
	a in mm	a in in.
ZB4BP..	36.5	1.44
ZB4BP•S	33	1.30
ZB4BP•83	32	1.26
ZB4BP•	35	1.38

**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) Ø 22.5 mm / 0.89 in. recommended (Ø 22.3 mm <math>^{+0.4}</math> / 0.88 in. <math>^{+0.016}</math>) (5) 45 mm min. / 1.78 in. min. (6) 32 mm min. / 1.26 in. min.</p>	 <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) Ø 22.5 mm / 0.89 in. recommended (Ø 22.3 mm <math>^{+0.4}</math> / 0.88 in. <math>^{+0.016}</math>) (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)

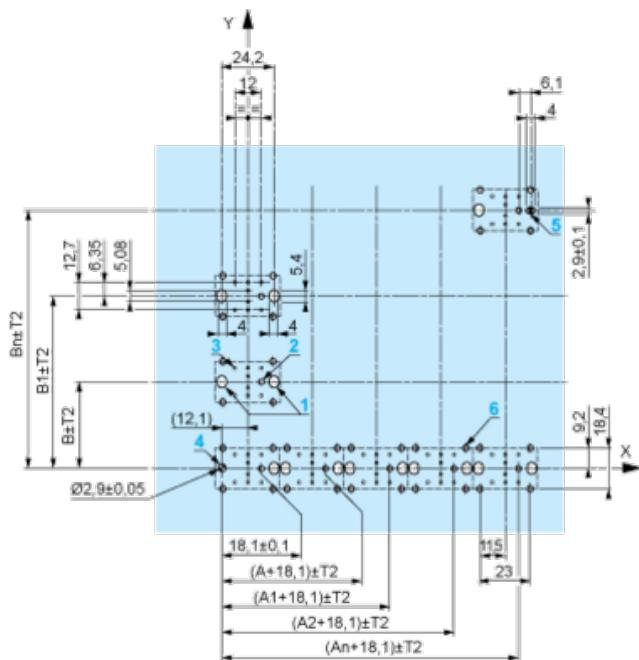


**A:** 30 mm min. / 1.18 in. min.

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

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

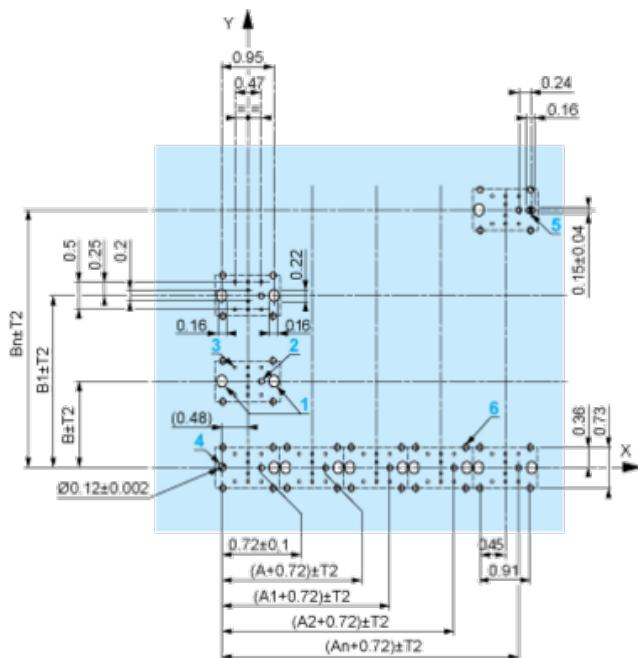
Dimensions in mm



A: 30 mm min.

B: 40 mm min.

Dimensions in in.



**A:** 1.18 in. min.

**B:** 1.57 in. min.

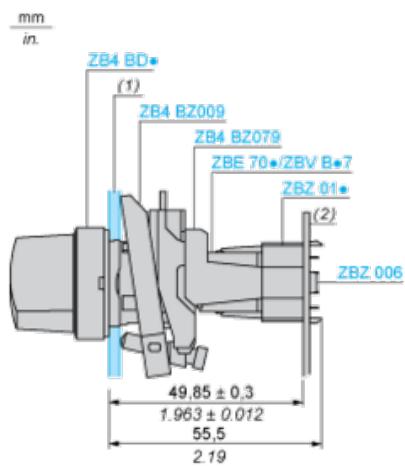
### General Tolerances of the Panel and Printed Circuit Board

The cumulative tolerance must not exceed 0.3 mm / 0.012 in:  $T_1 + T_2 = 0.3$  mm max.

### Installation Precautions

- Minimum thickness of circuit board: 1.6 mm / 0.06 in.
- Cut-out diameter:  $22.4 \text{ mm} \pm 0.1$  /  $0.88 \text{ in.} \pm 0.004$
- 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

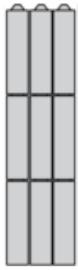
### Mounting of Adapter (Socket) ZBZ 01•

- 1 2 elongated holes for ZBZ 006 screw access
- 2 1 hole  $\varnothing 2.4 \text{ mm} \pm 0.05$  /  $0.09 \text{ in.} \pm 0.002$  for centring adapter ZBZ 01•
- 3 8 ×  $\varnothing 1.2 \text{ mm} / 0.05 \text{ in.}$  holes
- 4 1 hole  $\varnothing 2.9 \text{ mm} \pm 0.05$  /  $0.11 \text{ in.} \pm 0.002$ , 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  $\varnothing 2.4 \text{ mm} / 0.09 \text{ in.}$  for clipping in adapter ZBZ 01•

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

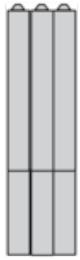
**Electrical Composition Corresponding to Code C1**

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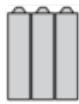
**Electrical Composition Corresponding to Code C2**

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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



### Legend

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Single contact



Double contact



Light block



Possible location

