

## Product data sheet

### Characteristics

# ZB4BA4

Harmony XB4, Push button head, metal, flush, red, 22mm, spring return, unmarked



#### Main

Range of product	Harmony XB4
Product or component type	Head for non-illuminated push-button type
Device short name	ZB4
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	Red flush, unmarked

#### Complementary

CAD overall width	29 mm
CAD overall height	29 mm
CAD overall depth	28 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 IP67 IP69 IP69K
NEMA degree of protection	NEMA 13 NEMA 4X
IK degree of protection	IK06 conforming to IEC 50102
Standards	CSA C22.2 No 14 JIS C8201-5-1 IEC 60947-5-1 IEC 60947-1 IEC 60947-5-4 IEC 60947-5-5 UL 508 JIS C8201-1
Product certifications	GL[RETURN]DNV[RETURN]LROS (Lloyds register of shipping)[RETURN]UL listed[RETURN]CSA[RETURN]BV

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. 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. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

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 Height	4.500 cm
Package 1 Width	3.400 cm
Package 1 Length	5.400 cm
Package 1 Weight	28.000 g
Unit Type of Package 2	S03
Number of Units in Package 2	300
Package 2 Height	30.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	8.880 kg
Unit Type of Package 3	P06
Number of Units in Package 3	2400
Package 3 Height	75.000 cm
Package 3 Width	60.000 cm
Package 3 Length	80.000 cm
Package 3 Weight	81.164 kg

## 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) <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS Declaration</a>
RoHS exemption information	<a href="#">Yes</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End Of Life Information</a>

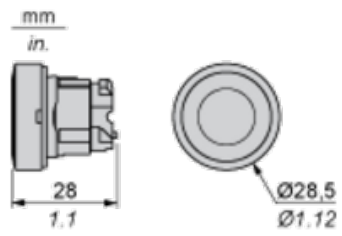
## Contractual warranty

Warranty	18 months
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Dimensions

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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) <math>\varnothing 22.5 \text{ mm} / 0.89 \text{ in.}</math> recommended (<math>\varnothing 22.3 \text{ mm}_0^{+0.4} / 0.88 \text{ in.}_0^{+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

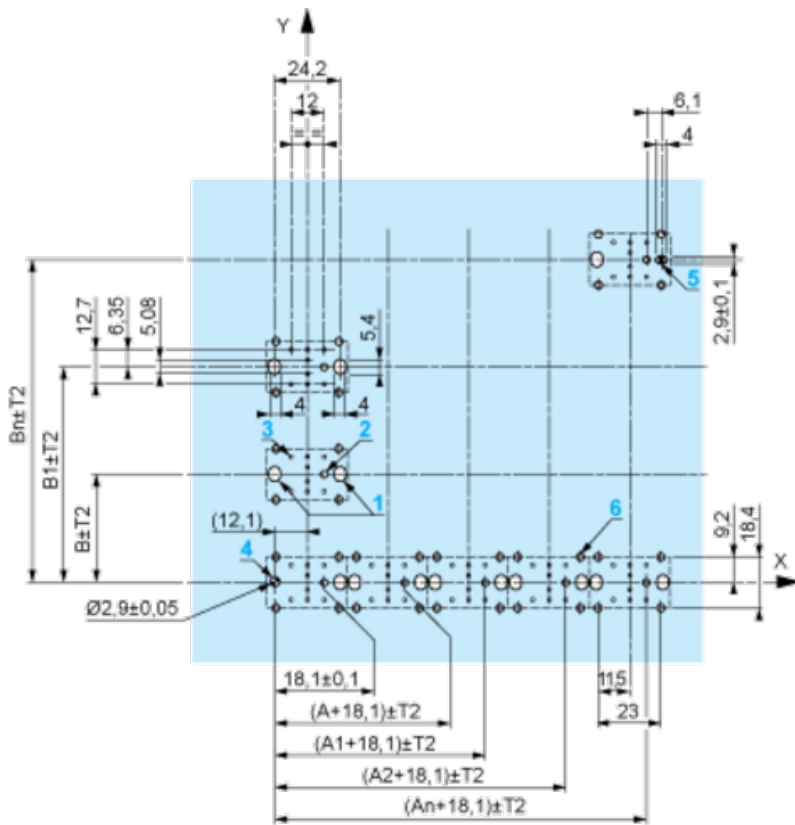
Panel Cut-outs (Viewed from Installer's Side)



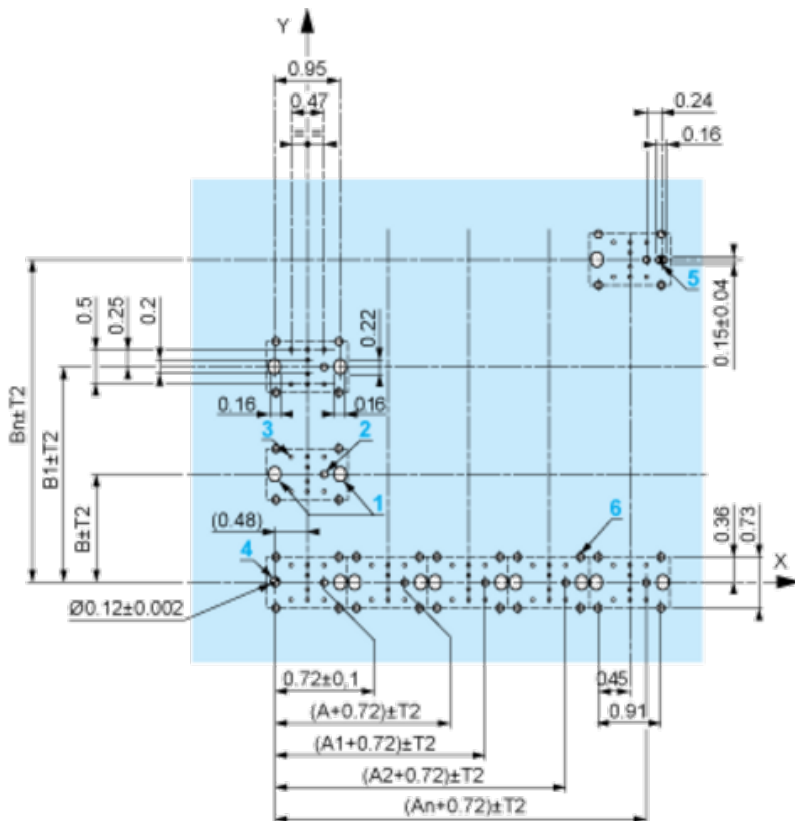
A: 30 mm min. / 1.18 in. min.  
 B: 40 mm min. / 1.57 in. min.

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:  $T1 + T2 = 0.3$  mm max.

## Installation Precautions

- Minimum thickness of circuit board: 1.6 mm / 0.06 in.
- Cut-out diameter: 22.4 mm  $\pm$  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•.

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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

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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

