### Product data sheet Characteristics

## ZB4BD2

Harmony XB4, Selector switch head, metal, black, Ø22, 2 positions, stay put





### Main

Range of product	Harmony XB4
Product or component type	Head for selector switch
Device short name	ZB4
Bezel material	Chromium plated metal
Mounting diameter	22 mm
Head type	Standard
Sale per indivisible quantity	1
Shape of signaling unit head	Round
Type of operator	Stay put
Operator profile	Black standard handle
Operator position information	2 positions 90°

### Complementary

C6 for <5 contacts using single and double blocks in front mounting C7 for <4 contacts using single blocks in front mounting C8 for <4 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			
C7 for <4 contacts using single blocks in front mounting C8 for <4 contacts using single and double blocks in front mounting			
C7 for <4 contacts using single blocks in front mounting			
C6 for <5 contacts using single and double blocks in front mounting			
C5 for <5 contacts using single blocks in front mounting			
C4 for <6 contacts using single and double blocks in front mounting			
C3 for <6 contacts using single blocks in front mounting			
1000000 cycles			
7000000 Pa at 55 °C, distance : 0.1 m			
0.04 kg			
44 mm			
29 mm			
29 mm			

### **Environment**

Protective treatment	TH			
Ambient air temperature for storage	-4070 °C			
Ambient air temperature for operation	-4070 °C			
Overvoltage category	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	JIS C8201-5-1 EN/IEC 60947-5-1 EN/IEC 60947-5-4 EN/IEC 60947-1 CSA C22.2 No 14 EN/IEC 60947-5-5 UL 508 JIS C8201-1		
Product certifications	BV LROS (Lloyds register of shipping) DNV UL listed CSA GL		
Vibration resistance	5 gn (f= 2500 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**

r doking office	
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	44.0 g
Package 1 Height	3.5 cm
Package 1 width	5.4 cm
Package 1 Length	5.4 cm
Unit Type of Package 2	P06
Number of Units in Package 2	2000
Package 2 Weight	102.604 kg
Package 2 Height	77 cm
Package 2 width	60 cm
Package 2 Length	80 cm
Unit Type of Package 3	S03
Number of Units in Package 3	250
Package 3 Weight	11.706 kg
Package 3 Height	30 cm
Package 3 width	30 cm
Package 3 Length	40 cm

### Offer Sustainability

Sustainable offer status	Green Premium product			
REACh Regulation	<sup>™</sup> REACh Declaration			
REACh free of SVHC	Yes			
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EVEN RoHS			
Toxic heavy metal free	Yes			
Mercury free	Yes			
RoHS exemption information	₽¥Yes			
China RoHS Regulation	☑ China RoHS Declaration			
Environmental Disclosure	Product Environmental Profile			
Circularity Profile	☑ End Of Life Information			

### Contractual warranty

2

Contractadi Warranty		
Warranty	18 months	

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# Product data sheet Dimensions Drawings

## ZB4BD2

### **Dimensions**





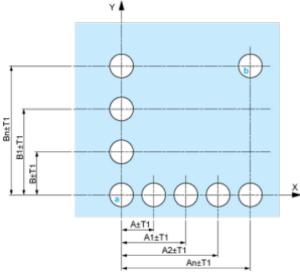
### Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)

# Connection by Screw Clamp Terminals or Plug-in Connectors or on Connection by Faston Connectors **Printed Circuit Board**

- (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)

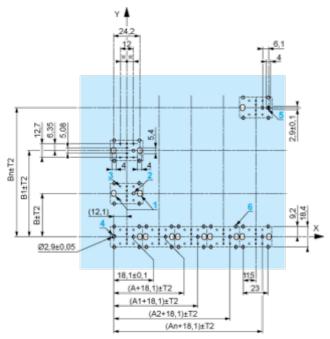


A: 30 mm min. / 1.18 in. min.

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

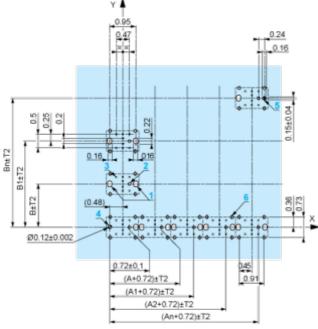
Printed Circuit Board Cut-outs (Viewed from Electrical Block Side)

Dimensions in mm



A: 30 mm min. B: 40 mm min.

Dimensions in in.



A: 1.18 in. min. B: 1.57 in. min.

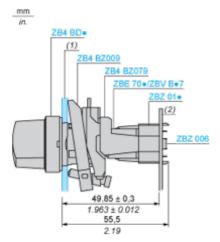
### General Tolerances of the Panel and Printed Circuit Board

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:
  - o every 90 mm / 3.54 in. horizontally (X), and 120 mm / 4.72 in. vertically (Y).
  - o 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•
- 38 × 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  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 holes for centring adapter ZBZ 01•.

## Product data sheet Technical Description

## ZB4BD2

Electrical Composition Corresponding to Code C3
Electrical Composition Corresponding to Code C4
Electrical Composition Corresponding to Code C5
Electrical Composition Corresponding to Code C6
Electrical Composition Corresponding to Code C7

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## Sequence of Contacts Fitted to 2-position Selector Switch Body

### Position 315°



Push	Position	Тор			
Bottom	Δ	Δ	Δ		
Location		Left	Centre	Right	
State		0	0	0	
Contacts	N/O		open	open	open
N/C		closed	closed	closed	

### Position 45°



Push	Position	Тор			
Bottom					
Location		Left	Centre	Right	
State		1	1	1	
Contacts	N/O		closed	closed	closed
N/C		open	open	open	