# Product datasheet Characteristics

# ZB4BJ3

# black selector switch head Ø22 3-position stay put



#### Main

Mani		
Range of product	Harmony XB4	<u></u>
Product or component type	Head for selector switch	
Device short name	ZB4	
Bezel material	Chromium plated metal	
Mounting diameter	22 mm	5
Sale per indivisible quantity	1	,
Shape of signaling unit head	Round	
Type of operator	Stay put	
Operator profile	Black long handle	
Operator additional information	Non padlockable	
Operator position information	3 positions +/- 45°	

## Complementary

CAD overall width	29 mm	
CAD overall height	38 mm	
CAD overall depth	44 mm	<u>.</u>
Product weight	0.04 kg	
Resistance to high pressure washer	7000000 Pa at 55 °C,distance: 0.1 m	
Mechanical durability	1000000 cycles	tsd::-
Electrical composition code	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 C11 for <= 3 contacts using single blocks in front mounting C3 for <= 6 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	
Main group	Selector switch	2
Group of product	Long handle not padlockable	
Cap/Operator or lens colour	Black	Ę
Compatibility code	ZB4	<u>c</u>

## 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	IP69K IP69 IP67 conforming to IEC 60529
NEMA degree of protection	NEMA 4X NEMA 13
IK degree of protection	IK06 conforming to IEC 50102
Standards	UL 508 EN/IEC 60947-5-1 EN/IEC 60947-1 JIS C 4520 EN/IEC 60947-5-5 CSA C22.2 No 14 EN/IEC 60947-5-4
Product certifications	UL listed LROS (Lloyds register of shipping) CSA GL DNV RINA BV
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

## Contractual warranty

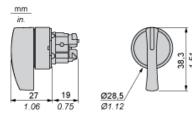
Warranty period	18 months
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# Product datasheet Dimensions Drawings

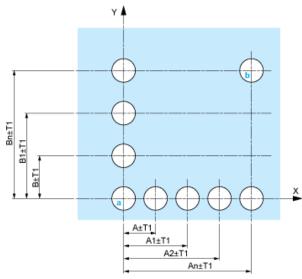
# ZB4BJ3

## **Dimensions**



## Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

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

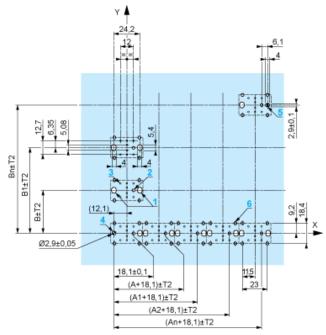


A: 30 mm min. / 1.18 in. min.

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

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

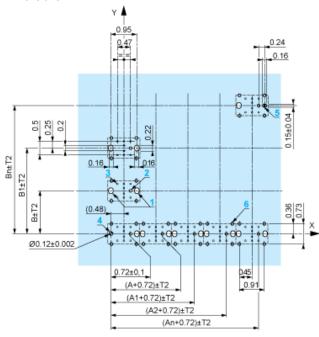
#### Dimensions in mm



A: 30 mm min.

B: 40 mm min.

#### Dimensions in in.



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

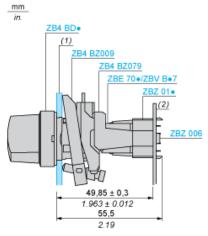
#### General Tolerances of the Panel and Printed Circuit Board

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•

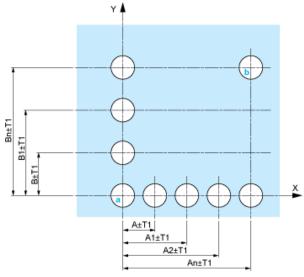
- 1 2 elongated holes for ZBZ 006 screw access
- 2 1 hole Ø 2.4 mm  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 for centring adapter ZBZ 01•
- 38 × Ø 1.2 mm / 0.05 in. holes
- 4 1 hole Ø 2.9 mm  $\pm$  0.05 / 0.11 in.  $\pm$  0.002, for aligning the printed circuit board (with cut-out marked a)
- 5 1 elongated hole for aligning the printed circuit board (with cut-out marked b)
- 6 4 holes 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•.



## Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

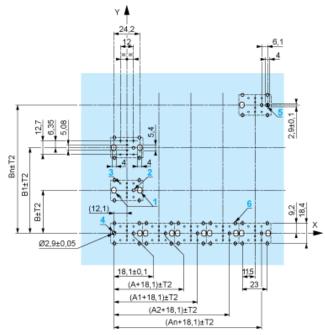
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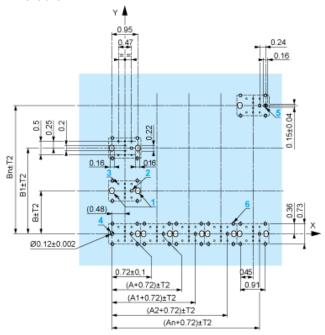
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#### Dimensions in mm



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#### Dimensions in in.



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

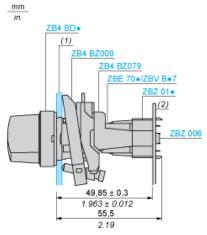
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#### Mounting of Adapter (Socket) ZBZ 01•

- 1 2 elongated holes for ZBZ 006 screw access
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- 3 8 × Ø 1.2 mm / 0.05 in. holes
- 4 1 hole Ø 2.9 mm  $\pm$  0.05 / 0.11 in.  $\pm$  0.002, for aligning the printed circuit board (with cut-out marked a)
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Dimensions An + 18.1 relate to the Ø 2.4 mm ± 0.05 / 0.09 in. ± 0.002 holes for centring adapter ZBZ 01•.

## ZB4BJ3

## Sequence of Contacts Fitted to 3-position Selector Switch Body

## Position 315°



Push	Position	Тор			
Bottom					
Location		Left	Centre	Right	
State		1	1	0	
Contacts	N/O		closed	closed	open
N/C	•	open	open	closed	

## Position 0°



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



Push	Position	Тор			
Bottom			•		
Location		Left	Centre	Right	
State		0	1	1	
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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		0	1	1	
Contacts	N/O		open	closed	closed
N/C		closed	open	open	

## ZB4BJ3

## Sequence of Contacts Fitted to 3-position Selector Switch Body

## Position 315°



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Bottom					
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## Position 0°



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Bottom	Δ	Δ	Δ		
Location		Left	Centre	Right	
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Bottom			,		
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Bottom	Δ	Δ	Δ		
Location		Left	Centre	Right	
State		0	0	0	
Contacts	N/O	V/O		open	open
N/C		closed	closed	closed	



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