### **ZB4BD501**

# white selector switch head Ø22 3-position spring return



Product availability: Non-Stock - Not normally stocked in distribution facility



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	0.87 in (22 mm)
Head type	Standard
Sale per indivisible quantity	1
Shape of signaling unit head	Round
Type of operator	To centre spring return
Operator profile	White standard handle
Operator position information	3 positions +/- 45°

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CAD overall width	1.14 in (29 mm)			
CAD overall height	1.14 in (29 mm)			
CAD overall depth	1.73 in (44 mm)			
Net weight	0.09 lb(US) (0.04 kg)			
Resistance to high pressure washer	1015.26 psi (7000000 Pa) 131 °F (55 °C) 0.1 m			
Mechanical durability	1000000 cycles			
Electrical composition code	C3 6 single front mounting C4 6 single and double front mounting C5 5 single front mounting C6 5 single and double front mounting C7 4 single front mounting C8 4 single and double front mounting C11 3 single front mounting			
Device presentation	Basic element			

#### Environment

Protective treatment	TH		
Ambient air temperature for storage	-40158 °F (-4070 °C)		
Ambient air temperature for operation	-40158 °F (-4070 °C)		
Overvoltage category	Class I IEC 60536		
IP degree of protection	IP67 IEC 60529 IP69 IP69K		
NEMA degree of protection	NEMA 13 NEMA 4X		
IK degree of protection	IK06 IEC 50102		
Standards	UL 508 EN/IEC 60947-5-4 EN/IEC 60947-1 CSA C22.2 No 14 JIS C8201-5-1 EN/IEC 60947-5-5 EN/IEC 60947-5-1 JIS C8201-1		

Product certifications	BV
	GL
	UL listed
	DNV
	RINA
	CSA
	LROS (Lloyds register of shipping)
Vibration resistance	5 gn 2500 Hz)IEC 60068-2-6
Shock resistance	30 gn 18 ms) half sine wave acceleration IEC 60068-2-27
	50 gn 11 ms) half sine wave acceleration IEC 60068-2-27

Category	22468 - PUSHBUTTONS,22MM(METAL) NEW		
Discount Schedule	CS2		
GTIN	00785901088066		
Package weight(Lbs)	0.05 kg (0.1 lb(US))		
Returnability	No		
Country of origin	FR		

#### Offer Sustainability

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Sustainable offer status	Green Premium product		
California proposition 65	WARNING: This product can expose you to chemicals including: Nickel compounds and Di-isodecyl phthalate (DIDP) which is known to the State of California to cause Carcinogen and Reproductive harm. For more information go to www.p65warnings.ca.gov		
REACh Regulation	☑ REACh Declaration		
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)		
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		

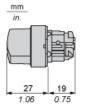
#### Contractual warranty

Warranty	18 months

# Product data sheet Dimensions Drawings

# **ZB4BD501**

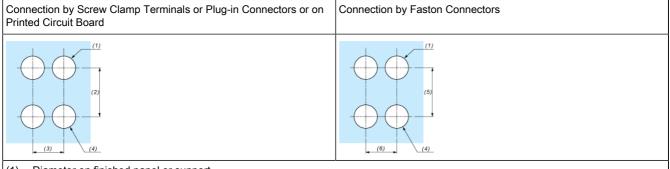
#### **Dimensions**





### **ZB4BD501**

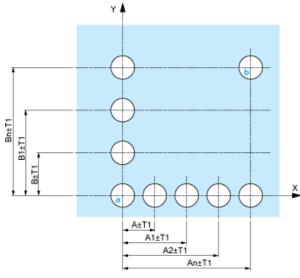
#### Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)



- Diameter on finished panel or support
- 40 mm min. / 1.57 in. min.
- (3) 30 mm min. / 1.18 in. min.
- Ø 22.5 mm / 0.89 in. recommended (Ø 22.3 mm  $_0$  <sup>+0.4</sup> / 0.88 in.  $_0$  <sup>+0.016</sup>) (4)
- (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

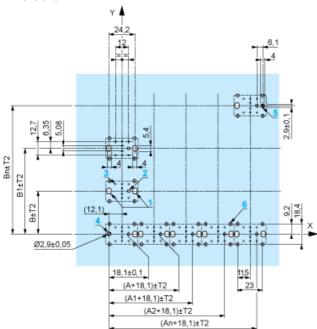
#### Panel Cut-outs (Viewed from Installer's Side)



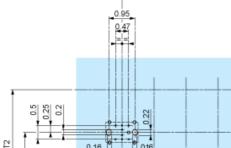
- 30 mm min. / 1.18 in. min.
- B: 40 mm min. / 1.57 in. min.

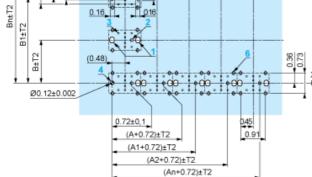
#### Printed Circuit Board Cut-outs (Viewed from Electrical Block Side)

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.

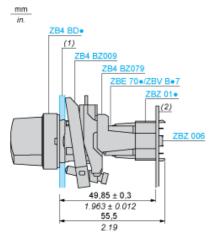
#### **Installation Precautions**

- 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).

0.16

- 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•
- 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)
- 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•.

# **ZB4BD501**

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



Electrical Composition Corresponding to Codes C9, C11, SF1 and SR1



Legend

Single contact



Double contact



Light block



Possible location



Sequence of Contacts Fitted to 3-position Selector Switch Body

Position 315°



Push	Position Top				
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	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	