# **Product datasheet**





# Mushroom push button head Ø40, metal, blue, Ø22, spring return

Local distributor code: 23708693

ZB4BC6

EAN Code: 3389110888478

## Main

Range Of Product	Harmony XB4
Product Or Component Type	Head for non-illuminated push-button
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	Blue mushroom Ø 40 mm, unmarked
Cap/Operator Or Lens Colour	Blue

# Complementary

Cad Overall Width	40 mm	
Cad Overall Height	40 mm	
Cad Overall Depth	52 mm	
Mechanical Durability	5000000 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	-4070 °C
Ambient Air Temperature For Operation	-4070 °C
Overvoltage Category	Class I conforming to IEC 60536
Ip Degree Of Protection	IP66 conforming to IEC 60529 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 EN/IEC 60947-5-5 EN/IEC 60947-1 EN/IEC 60947-5-4 JIS C8201-5-1 UL 508 EN/IEC 60947-5-1 JIS C8201-1	
Product Certifications	LROS (Lloyds register of shipping) UL listed DNV GL BV CSA	
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**

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	4.2 cm
Package 1 Width	5.0 cm
Package 1 Length	8.6 cm
Package 1 Weight	77.0 g
Unit Type Of Package 2	S02
Number Of Units In Package 2	42
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	3.57 kg

# **Contractual warranty**

Warranty 18 months



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Transparency RoHS/REACh

## Well-being performance

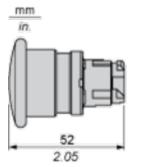
<b>⊘</b>	Reach Free Of Svhc	
<b>⊘</b>	Toxic Heavy Metal Free	
<b>⊘</b>	Mercury Free	
<b>⊘</b>	Rohs Exemption Information	Yes

### **Certifications & Standards**

Reach Regulation	REACh Declaration	
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration	
China Rohs Regulation	China RoHS declaration	
Environmental Disclosure	Product Environmental Profile	
Circularity Profile	End of Life Information	

# **Dimensions Drawings**

## **Dimensions**





	Ø in mm	Ø in in.
ZB4BC•	40	1.57
ZB4BR•	60	2.36

#### Mounting and Clearance

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

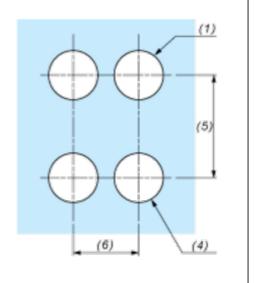
Connectors or on Printed Circuit Board

(1)

(2)

Connection by Screw Clamp Terminals or Plug-in

Connection by Faston Connectors



(1) Diameter on finished panel or support

(3)

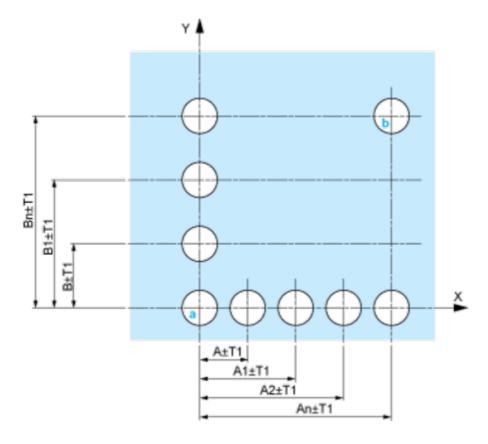
- (2) 40 mm min. / 1.57 in. min.
- (3) 30 mm min. / 1.18 in. min.
- (4) Ø 22.5 mm / 0.89 in. recommended (Ø 22.3 mm  $_0^{+0.4}$  / 0.88 in.  $_0^{+0.016}$ )

(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

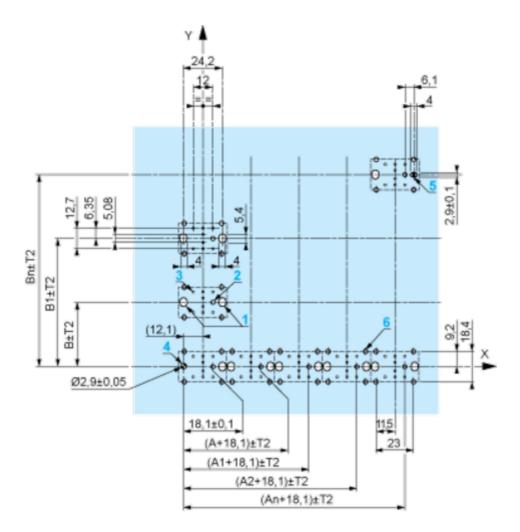
#### Panel Cut-outs (Viewed from Installer's Side)



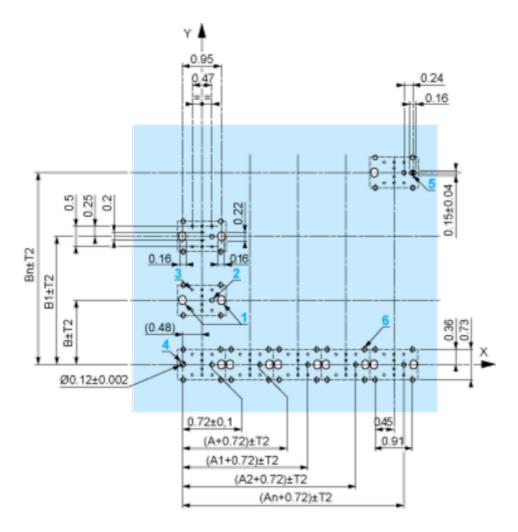
**A:** 30 mm min. / 1.18 in. min. **B:** 40 mm min. / 1.57 in. min.

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.

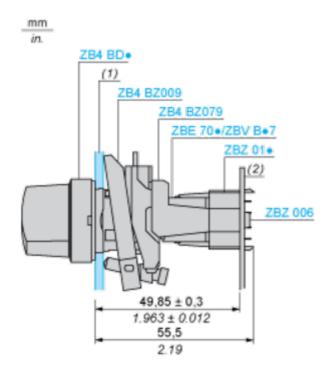
#### General Tolerances of the Panel and Printed Circuit Board

The cumulative tolerance must not exceed 0.3 mm / 0.012 in: T1 + T2 = 0.3 mm max.

#### **Installation Precautions**

- $_{\bullet}$  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:
  - $_{\circ}\;$  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  ${\bf a}$  and  ${\bf b}$  are diagonally opposed and must align with those marked  ${\bf 4}$  and  ${\bf 5}$ .



- (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 ± 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  $\emptyset$  2.4 mm  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 holes for centring adapter ZBZ 01•.

**Technical Description** 

**Electrical Composition Corresponding to Code C1** 



**Electrical Composition Corresponding to Code C2** 



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



## **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

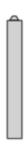


## Legend

Single contact



Double contact



Light block



Possible location

