

# Mushroom push button head Ø40, plastic, green, Ø22, spring return

ZB5AC3

IVI	a	ı	r	1
-----	---	---	---	---

Range of product	Harmony XB5
Product or component type	Head for non-illuminated push-button
Device short name	ZB5
Bezel material	Dark grey plastic
Head type	Standard
Mounting diameter	22 mm
Sale per indivisible quantity	1
Shape of signaling unit head	Round
Type of operator	spring return
Operator profile	Green mushroom Ø 40 mm, unmarked
Device presentation	Basic element

## Complementary

CAD overall width	40 mm
CAD overall height	40 mm
CAD overall depth	52 mm
Product weight	0.046 kg
Mechanical durability	5000000 cycles
Station name	XALD 1 cut-out
	XALK 1 cut-out
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
	SF1 for <3 contacts using single blocks in front mounting
	SR1 for <3 contacts using single blocks in rear mounting
Compatibility code	ZB5

#### **Environment**

Protective treatment	тн
Ambient air temperature for storage	-4070 °C
Ambient air temperature for	-4070 °C

Overvoltage category	Class II conforming to IEC 60536
IP degree of protection	IP66 conforming to IEC 60529 IP69 IP69K
NEMA degree of protection	NEMA 13 NEMA 4X
Resistance to high pressure washer	7000000 Pa at 55 °C, distance : 0.1 m
IK degree of protection	IK03 conforming to IEC 50102
Standards	JIS C8201-5-1 CSA C22.2 No 14 EN/IEC 60947-5-1 EN/IEC 60947-1 UL 508 EN/IEC 60947-5-4 JIS C8201-1
Product certifications	UL listed BV CSA DNV LROS (Lloyds register of shipping) 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	
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.500 cm
Package 1 Width	5.000 cm
Package 1 Length	9.000 cm
Package 1 Weight	48.000 g
Unit Type of Package 2	S02
Number of Units in Package 2	42
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	2.250 kg
Offer Sustainability	
Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
REACh free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	China RoHS declaration
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information

## **Contractual warranty**

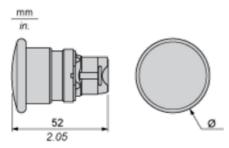
Warranty

18 months

# ZB5AC3

**Dimensions Drawings** 

#### **Dimensions**

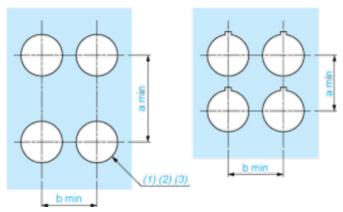


	Ø in mm	Ø in in.
ZB5AC•	40	1.57
ZB5AR•	60	2.36

Mounting and Clearance

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

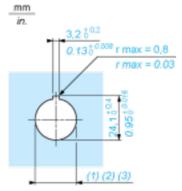
#### Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- (1) Diameter on finished panel or support
- (2) For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended.
- (3) Ø22.5 mm recommended (Ø22.3  $_{0}^{+0.4}$ ) / Ø0.89 in. recommended (Ø0.88 in.  $_{0}^{+0.016}$ )

Connections	a in mm	a in in.	b in mm	b in in.
By screw clamp terminals or plug-in connector	40	1.57	30	1.18
By Faston connectors	45	1.77	32	1.26
On printed circuit board	30	1.18	30	1.18

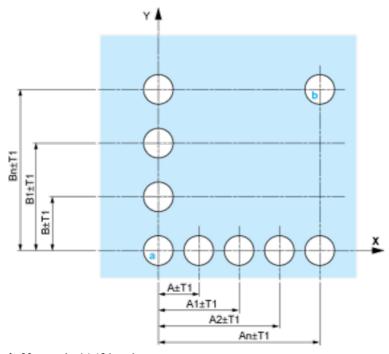
#### **Detail of Lug Recess**



- (1) Diameter on finished panel or support
- (2) For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended.
- (3) Ø22.5 mm recommended (Ø22.3  $_0^{+0.4}$ ) / Ø0.89 in. recommended (Ø0.88 in.  $_0^{+0.016}$ )

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

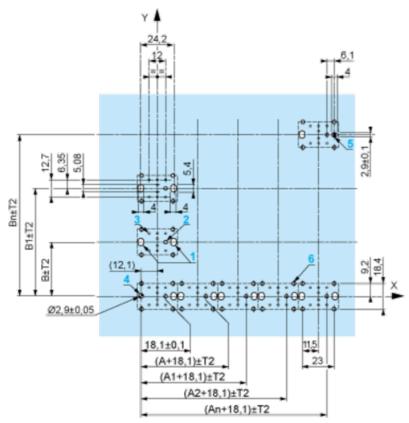
#### Panel Cut-outs (Viewed from Installer's Side)



**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)

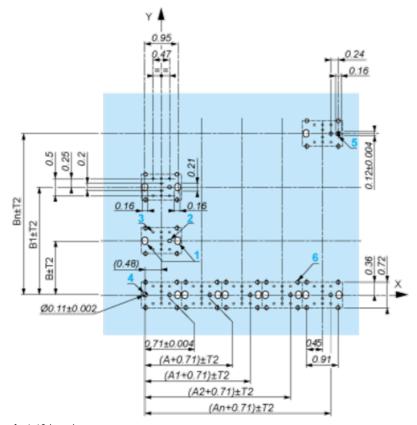
Dimensions in mm



**A:** 30 mm min.

**B**: 40 mm min.

Dimensions in in.



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

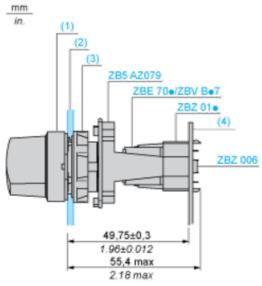
#### General Tolerances of the Panel and Printed Circuit Board

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 ZB5AZ009: ± 2 30' (excluding cut-outs marked a and b).
- Tightening torque of screws ZBZ006: 0.6 N.m (5.3 lbf.in) max.
- Allow for one ZB5AZ079 fixing collar/pillar and its fixing screws:
  - $\circ$  every 90 mm / 3.54 in. horizontally (X), and 120 mm / 4.72 in. vertically (Y).
  - $\circ$   $\;$  with each selector switch head (ZB5AD•, ZB5AJ•, ZB5AG•).

The fixing centers marked  ${\bf a}$  and  ${\bf b}$  are diagonally opposed and must align with those marked  ${\bf 4}$  and  ${\bf 5}$ .



- (1) Head ZB5AD•
- (2) Panel
- (2) Nut
- (4) Printed circuit board

## Mounting of Adapter (Socket) ZBZ01•

- 1 2 elongated holes for ZBZ006 screw access
- 2 1 hole Ø 2.4 mm ± 0.05 / 0.09 in. ± 0.002 for centring adapter ZBZ01•
- $3.8 \times \emptyset 1.2 \text{ mm} / 0.05 \text{ in. holes}$
- 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 ZBZ01•

Dimensions An + 18.1 relate to the Ø 2.4 mm  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 holes for centring adapter ZBZ01•.

ZB5AC3

Technical Description

**Electrical Composition Corresponding to Code C1** 



ZB5AC3

Technical Description

**Electrical Composition Corresponding to Code C2** 



ZB5AC3

Technical Description

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



**Technical Description** 

## **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



## ZB5AC3

**Technical Description** 

Lea	en	d
Leg	en	u

Single contact



Double contact



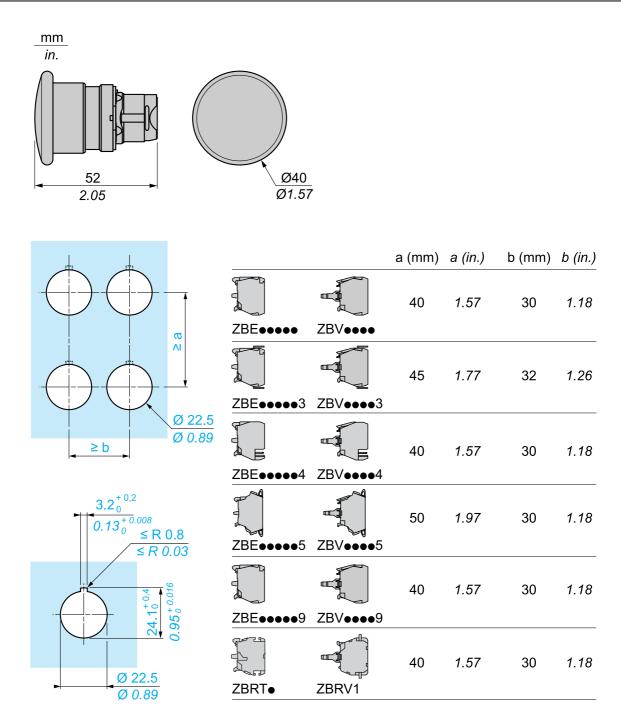
Light block



Possible location



#### **Dimensions**



Recommended replacement(s)