Specifications



Double-headed push button head, Harmony XB5, plastic, 22mm, 1 white flush marked I + 1 black flush marked O

ZB5AA7121

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Main	
Range of product	Harmony XB5
Product or component type	Head for double-headed push-button
Device short name	ZB5
Bezel material	Dark grey plastic
Mounting diameter	22 mm
Head type	Standard
Sale per indivisible quantity	1
Shape of signaling unit head	Rectangular
Type of operator	spring return
Operator profile	2 flush push-buttons
Operators description	White "I" - black "O"
Complementary	
CAD overall width	30 mm
CAD overall height	50 mm
CAD overall depth	30 mm
Net weight	0.023 kg
Colour of marking	Black marking when white caps White marking when green, red or black caps
	Black flush, O (white) White flush, I (black)
Mechanical durability	1000000 cycles
Station name	XALD 1 cut-out
Electrical composition code	C3 for <6 contacts using single blocks in front mounting C4 for <6 contacts using single and double blocks in front mounting C14 for <2 contacts using single blocks in front mounting SF2 for <2 contacts using single blocks in front mounting SR2 for <2 contacts using single blocks in rear mounting
Device presentation	Basic element
Environment	
Protective treatment	TH



Ambient air temperature for storage	-4070 °C
Ambient air temperature for operation	-2570 °C
Electrical shock protection class	Class II conforming to IEC 60536
IP degree of protection	IP66 conforming to IEC 60529 IP69K conforming to IEC 60529
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 60947-5-4 EN/IEC 60947-5-1 EN/IEC 60947-1 UL 508 JIS C8201-1
Product certifications	DNV LROS (Lloyds register of shipping) GL CSA BV UL listed
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	3.5 cm
Package 1 Width	5.5 cm
Package 1 Length	5.5 cm
Package 1 Weight	25 g
Unit Type of Package 2	S02
Number of Units in Package 2	100
Package 2 Height	15 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	2.773 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	

<b>RoHS</b> exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
California proposition 65	WARNING: This product can expose you to chemicals including: Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

# **Contractual warranty**

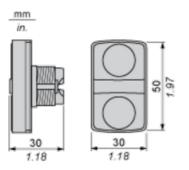
Warranty

18 months

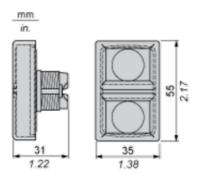
**Dimensions Drawings** 

### Dimensions

### Without Boot



### With Boot ZBA708

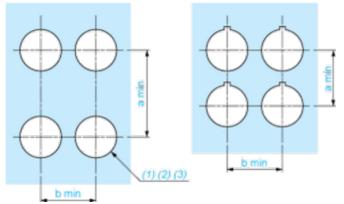


# ZB5AA7121

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



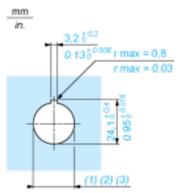
(1) Diameter on finished panel or support

(2) For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended.

(3)  $\emptyset$ 22.5 mm recommended ( $\emptyset$ 22.3  $_{0}^{+0.4}$ ) /  $\emptyset$ 0.89 in. recommended ( $\emptyset$ 0.88 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.

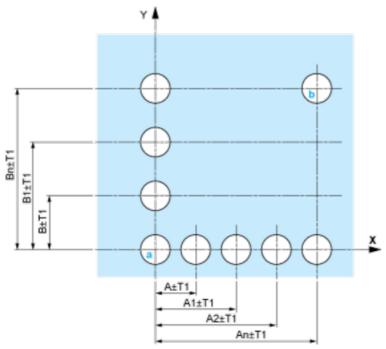
(3) Ø22.5 mm recommended (Ø22.3  $_{0}^{+0.4}$ ) / Ø0.89 in. recommended (Ø0.88 in.  $_{0}^{+0.016}$ )

# ZB5AA7121

Mounting and Clearance

Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

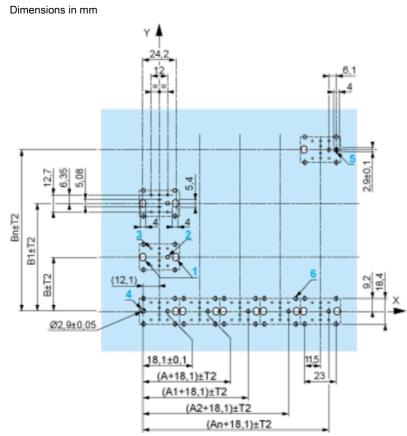
### Panel Cut-outs (Viewed from Installer's Side)



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

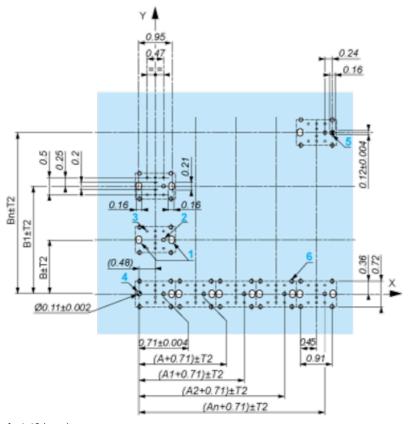
**B:** 40 mm min. / 1.57 in. min.

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



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

Dimensions in in.





B: 1.57 in. min.

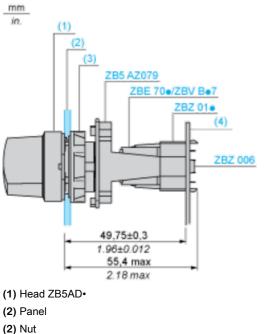
#### General Tolerances of the Panel and Printed Circuit Board

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 a and b are diagonally opposed and must align with those marked 4 and 5.



(4) Printed circuit board

### Mounting of Adapter (Socket) ZBZ01•

- 1 2 elongated holes for ZBZ006 screw access
- 2 1 hole Ø 2.4 mm  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 for centring adapter ZBZ01•
- 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 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+.

Technical Description

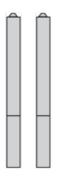
Electrical Composition Corresponding to Code C3





Technical Description

Electrical Composition Corresponding to Code C4



Technical Description

Electrical Composition Corresponding to Codes C14, SF2 and SR2



**Technical Description** 

### Legend

Single contact



### Double contact



#### Light block



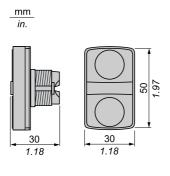
### Possible location

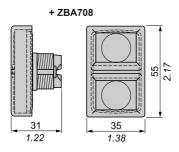


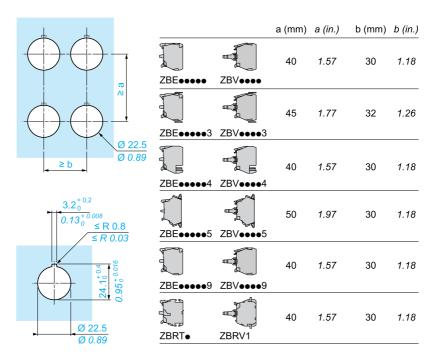


**Technical Illustration** 

### Dimensions







Recommended replacement(s)

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