

# Product datasheet

Specifications



Push button head, plastic, flush, black, Ø22, spring return, marked DOWN ARROW

Local distributor code: 237166335 ZB5AA335

## Main

Range of product Harmony XALF  
Harmony XB5

Product or component type Head for non-illuminated 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 Round

Type of operator spring return

Operator profile Black flush, down arrow (white)

## Complementary

CAD overall width 29 mm

CAD overall height 29 mm

CAD overall depth 28 mm

Net weight 0.018 kg

Mechanical durability 10000000 cycles

Station name XALD 1...5 cut-outs  
XALK 2...5 cut-outs

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

Device presentation Basic element

## Environment

Protective treatment TH

Ambient air temperature for storage -40...70 °C

Ambient air temperature for operation -40...70 °C

<b>Overvoltage category</b>	Class II conforming to IEC 60536
<b>IP degree of protection</b>	IP66 conforming to IEC 60529 IP67 IP69 IP69K
<b>NEMA degree of protection</b>	NEMA 13 NEMA 4X
<b>Resistance to high pressure washer</b>	7000000 Pa at 55 °C, distance : 0.1 m
<b>IK degree of protection</b>	IK03 conforming to IEC 50102
<b>Standards</b>	EN/IEC 60947-1 UL 508 CSA C22.2 No 14 EN/IEC 60947-5-1 JIS C8201-5-1 EN/IEC 60947-5-4 JIS C8201-1
<b>Product certifications</b>	UL listed CSA BV GL DNV LROS (Lloyds register of shipping)
<b>Shock resistance</b>	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
<b>Vibration resistance</b>	5 gn (f= 2...500 Hz) conforming to IEC 60068-2-6

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Weight</b>	16.0 g
<b>Package 1 Height</b>	3.4 cm
<b>Package 1 width</b>	4.5 cm
<b>Package 1 Length</b>	5.4 cm
<b>Unit Type of Package 2</b>	P06
<b>Number of Units in Package 2</b>	2400
<b>Package 2 Weight</b>	54.524 kg
<b>Package 2 Height</b>	77 cm
<b>Package 2 width</b>	60 cm
<b>Package 2 Length</b>	80 cm
<b>Unit Type of Package 3</b>	S03
<b>Number of Units in Package 3</b>	300
<b>Package 3 Weight</b>	5.518 kg
<b>Package 3 Height</b>	30 cm
<b>Package 3 width</b>	30 cm
<b>Package 3 Length</b>	40 cm

## Offer Sustainability

<b>Sustainable offer status</b>	Green Premium product
<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>
<b>REACH free of SVHC</b>	Yes
<b>EU RoHS Directive</b>	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>

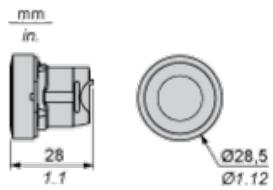
<b>Toxic heavy metal free</b>	Yes
<b>Mercury free</b>	Yes
<b>RoHS exemption information</b>	<a href="#">Yes</a>
<b>China RoHS Regulation</b>	<a href="#">China RoHS declaration</a>
<b>Environmental Disclosure</b>	<a href="#">Product Environmental Profile</a>
<b>Circularity Profile</b>	<a href="#">End of Life Information</a>

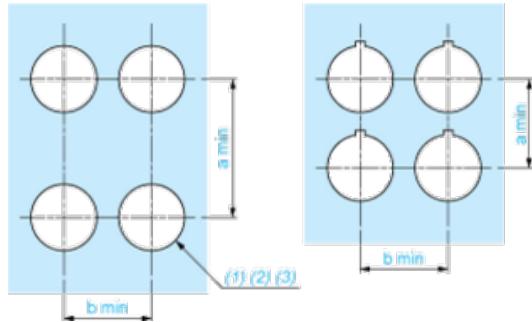
## **Contractual warranty**

<b>Warranty</b>	18 months
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Dimensions

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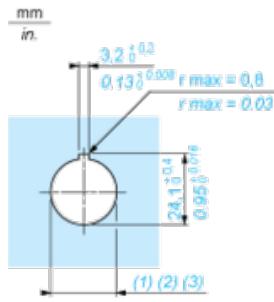
**Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)****Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board**

(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 ( $\varnothing 22.3 {}^{+0.4}_0$ ) / Ø0.89 in. recommended ( $\varnothing 0.88 {}^{+0.016}_0$ )

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**

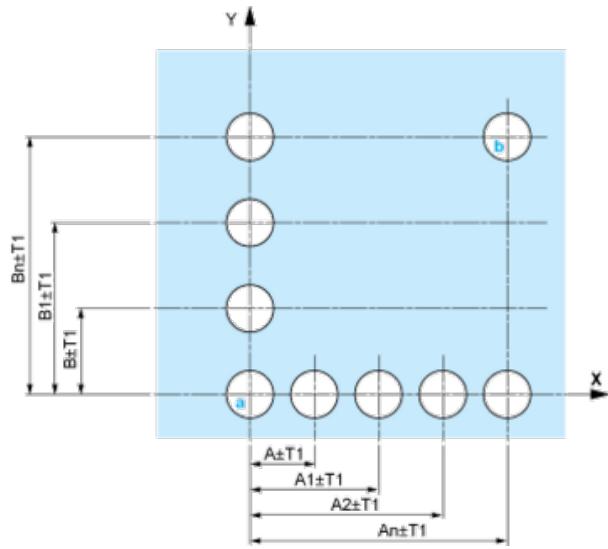
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## Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

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

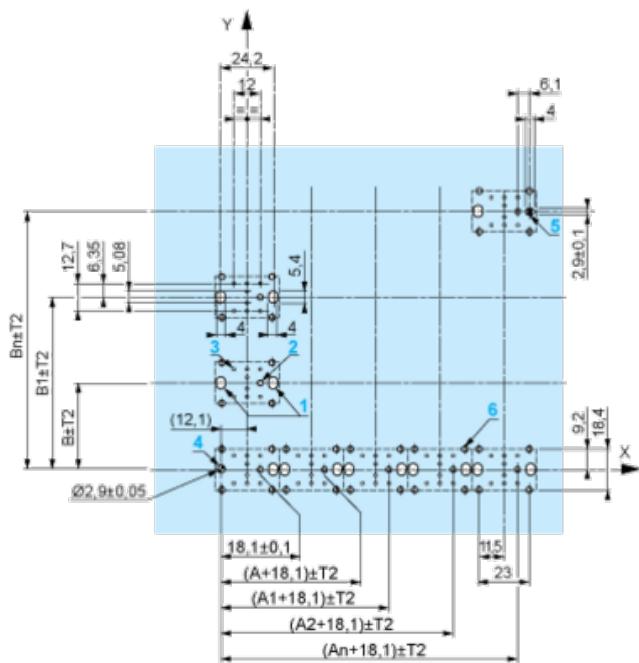


**A:** 30 mm min. / 1.18 in. min.

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

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

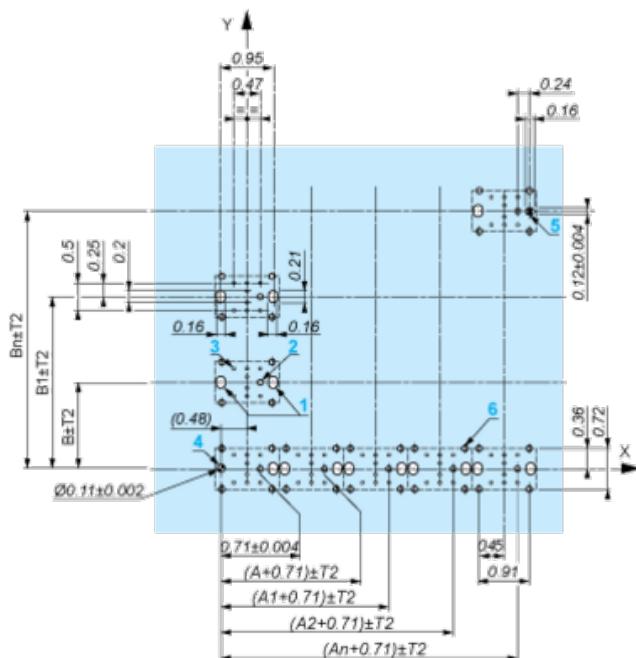
Dimensions in mm



A: 30 mm min.

B: 40 mm min.

Dimensions in in.



A: 1.18 in. min.

**B:** 1.57 in. min.

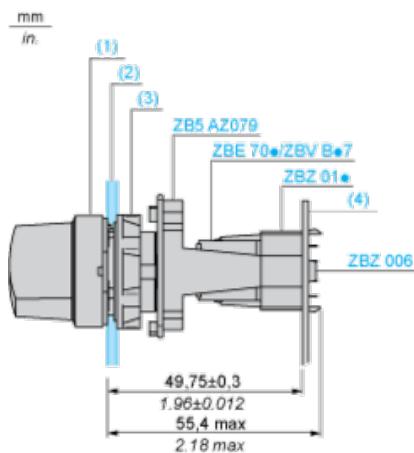
## General Tolerances of the Panel and Printed Circuit Board

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  $\pm$  0.1 / 0.88 in.  $\pm$  0.004
- Orientation of body/fixing collar ZB5AZ009:  $\pm 2^{\circ}30'$  (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:
  - every 90 mm / 3.54 in. horizontally (X), and 120 mm / 4.72 in. vertically (Y).
  - 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.



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

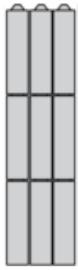
## Mounting of Adapter (Socket) ZBZ01•

- **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 × 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.

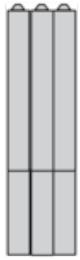
**Electrical Composition Corresponding to Code C1**

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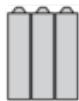
**Electrical Composition Corresponding to Code C2**

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

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### Electrical Composition Corresponding to Code C15

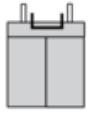
1 N/O



1 N/C



1 N/O + N/C or 1 N/O + N/O or 1 N/C + N/C



### Legend

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Single contact



Double contact



Light block



Possible location

