



Main

Range of product	Harmony XB5
Product or component type	Head for non-illuminated push-button
Device short name	ZB5
Bezel material	Plastic
Mounting diameter	22 mm
Sale per indivisible quantity	1
Shape of signaling unit head	Round
Type of operator	Spring return
Operator profile	Without cap

Complementary

CAD overall width	29 mm
CAD overall height	29 mm
CAD overall depth	28 mm
Product weight	0.022 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

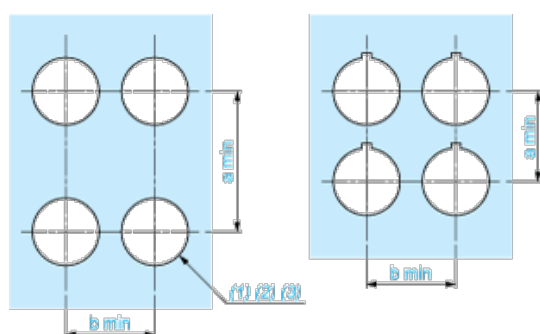
Environment

protective treatment	TH
ambient air temperature for storage	-40...70 °C
ambient air temperature for operation	-40...70 °C
overvoltage category	Class II conforming to IEC 60536
IP degree of protection	IP67 IP66 conforming to IEC 60529 IP69K IP69
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	EN/IEC 60947-1 EN/IEC 60947-5-1 EN/IEC 60947-5-4 JIS C 4520 UL 508 CSA C22.2 No 14
product certifications	BV CSA DNV GL LROS (Lloyds register of shipping) RINA UL listed
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

Warranty period	18 months
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Technical drawing of the 1000 Series 1/2. The drawing shows a side view and a top view. The side view indicates a length of 28 mm (1.1 in). The top view shows a circular feature with a diameter of 28.5 mm (1.12 in).

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 $^{+0.4}_0$) / Ø0.89 in. recommended (Ø0.88 in. $^{+0.016}_0$)

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

Technical drawing of a hole in a plate. The drawing shows a circular hole with a diameter of $\varnothing 13 \pm 0.12$ mm. The hole is located in a plate with a thickness of 24.1 ± 0.4 mm. The hole is centered on the plate. The drawing includes dimension lines and arrows indicating the measurements. The hole is labeled with (1), (2), and (3) at the bottom.

- (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 $^{+0.4}_0$) / Ø0.89 in. recommended (Ø0.88 in. $^{+0.016}_0$)

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



Dimensions in mm





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.: $T1 + T2 = 0.3 \text{ mm max.}$

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: $\pm 2^\circ 30'$ (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
- (3) Nut
- (4) Printed circuit board

Mounting of Adapter (Socket) ZBZ01•

- | 1 2 elongated holes for ZBZ006 screw access
- | 2 1 hole $\varnothing 2.4 \text{ mm} \pm 0.05$ / 0.09 in. ± 0.002 for centring adapter ZBZ01•
- | 3 8 $\times \varnothing 1.2 \text{ mm}$ / 0.05 in. holes
- | 4 1 hole $\varnothing 2.9 \text{ mm} \pm 0.05$ / 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 ± 0.05 / 0.09 in. ± 0.002 holes for centring adapter ZBZ01•.

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

