



Main

Range of product	Harmony XB5
Product or component type	Head for selector switch
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	Black toggle switch
Operator position information	2 positions 90°

Complementary

CAD overall width	29 mm
CAD overall height	29 mm
CAD overall depth	45 mm
Product weight	0.023 kg
Resistance to high pressure washer	7000000 Pa at 55 °C, distance: 0.1 m
Mechanical durability	500000 cycles

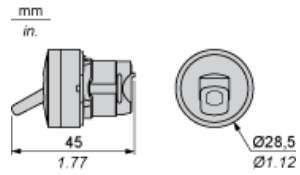
Environment

Protective treatment	TH
Ambient air temperature for storage	-40...70 °C
Ambient air temperature for operation	-25...70 °C
Class of protection against electric shock	Class II conforming to IEC 60536
IP degree of protection	IP69 K conforming to IEC 60529
NEMA degree of protection	NEMA 4X NEMA 13
Standards	EN/IEC 60947-5-4 EN/IEC 60947-5-1 JIS C 4520 EN/IEC 60947-1 UL 508 CSA C22-2 No 14 EN/IEC 60947-5-5
Product certifications	RINA UL listed DNV (Det Norske Veritas) LROS (Lloyds register of shipping) GL BV CSA
Vibration resistance	5 gn (f = 2...500 Hz) conforming to IEC 60068-2-6
Shock resistance	30 gn for 18 ms half sine wave acceleration conforming to IEC 60068-2-27 50 gn for 11 ms half sine wave acceleration conforming to IEC 60068-2-27

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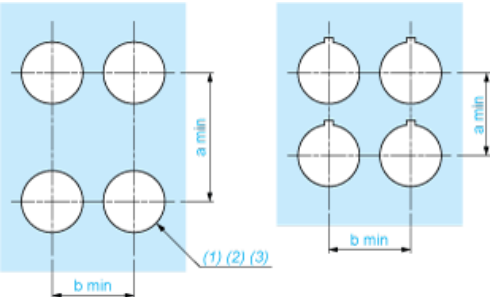
Dimensions of Heads for Toggle Switches

ZB5 AD•8



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

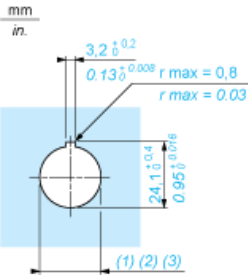
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- (1) Diameter on finished panel or support
- (2) For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5 AZ902 is recommended.
- (3) Ø22.5 mm recommended (Ø22.3₀^{+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

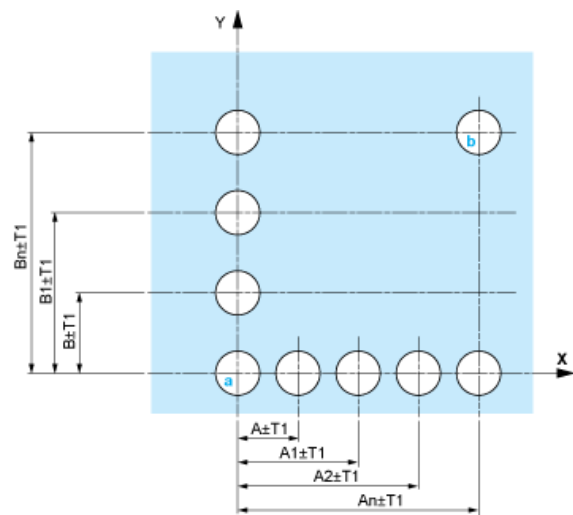
Detail of Lug Recess



- (1) Diameter on finished panel or support
- (2) For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5 AZ902 is recommended.
- (3) Ø22.5 mm recommended (Ø22.3₀^{+0.4}) / Ø0.89 in. recommended (Ø0.88 in.₀^{+0.016})

Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

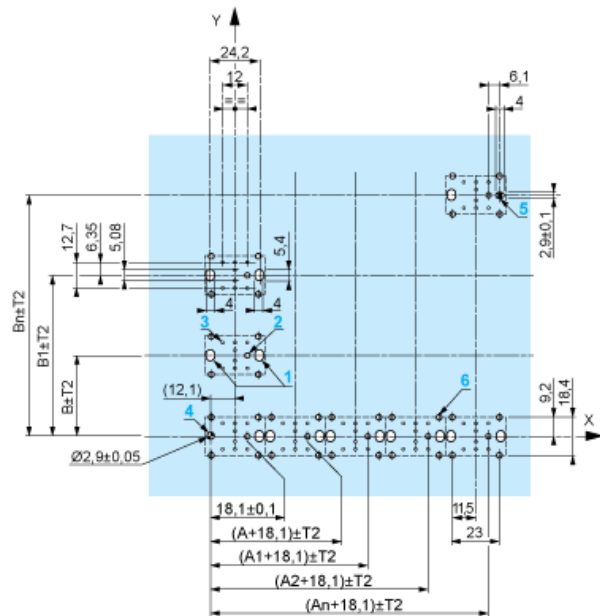
Panel Cut-outs (Viewed from Installer's Side)



- 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.

[illegible]

B: 1.57 in. min.

The cumulative tolerance must not exceed 0.3 mm / 0.012 in.: $T1 + T2 = 0.3 \text{ mm max.}$

- 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 ZB4 BZ009: $\pm 2^\circ 30'$ (excluding cut-outs marked a and b).
- Tightening torque of screws ZBZ 006: 0.6 N.m. max.
- Allow for one ZB4 BZ079 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 (ZB5 AD*, ZB5 AJ*, ZB5 AG*).

Technical drawing of the ZBZ 006 assembly. The drawing shows a cross-section of the assembly with various components labeled. The dimensions are as follows:

- Overall length: 49.75 ± 0.3
- Distance from front face to start of last thread: 1.96 ± 0.012
- Distance from front face to end of last thread: 55.4 max
- Distance from front face to end of assembly: 2.18 max

Part numbers and labels:

- ZB5 AZ079
- ZBE 70●/ZBV B●7
- ZBZ 01●
- ZBZ 006

Dimensions are given in mm and in.

- 1 2 elongated holes for ZBZ 006 screw access
- 2 1 hole $\varnothing 2.4 \text{ mm} \pm 0.05 / 0.09 \text{ in.} \pm 0.002$ for centring adapter ZBZ 01•
- 3 8 $\times \varnothing 1.2 \text{ mm} / 0.05 \text{ in.}$ holes
- 4 1 hole $\varnothing 2.9 \text{ mm} \pm 0.05 / 0.11 \text{ in.} \pm 0.002$, 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 $\varnothing 2.4 \text{ mm} / 0.09 \text{ in.}$ for clipping in adapter ZBZ 01•

Dimensions An + 18.1 relate to the $\varnothing 2.4 \text{ mm} \pm 0.05 / 0.09 \text{ in.} \pm 0.002$ holes for centring adapter ZBZ 01•.