

Main

Range of product	Harmony XB4
Product or component type	Head for double-headed pushbutton
Device short name	ZB4
Bezel material	Chromium plated metal
Mounting diameter	22 mm
Sale per indivisible quantity	1
Shape of signaling unit head	Rectangular
Type of operator	Spring return
Operator profile	2 flush pushbuttons
Operators description	White unmarked - black unmarked

Complementary

Product weight	0.056 kg
Resistance to high pressure washer	7000000 Pa at 55 °C, distance: 0.1 m
Colour of marking	Black marking when white caps White marking when green, red or black caps
Operator profile	Black flush unmarked White flush unmarked
Mechanical durability	1000000 cycles

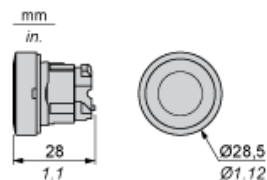
Environment

Ambient air temperature for storage	-40...70 °C
Ambient air temperature for operation	-25...70 °C
Class of protection against electric shock	Class I conforming to IEC 60536
IP degree of protection	IP66 conforming to IEC 60529 IP69 K conforming to IEC 60529
NEMA degree of protection	NEMA 13 NEMA 4X
IK degree of protection	IK03 conforming to IEC 50102
Standards	CSA C22-2 No 14 EN/IEC 60947-1 EN/IEC 60947-5-1 EN/IEC 60947-5-4 EN/IEC 60947-5-5 JIS C 4520 UL 508
Product certifications	BV CSA DNV GL LROS (Lloyds register of shipping) RINA UL listed
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
RoHS EUR status	Compliant
RoHS EUR conformity date	0627

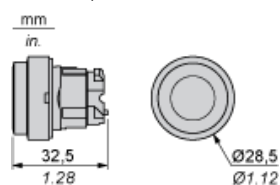
Dimensions of Heads for Spring Return Pushbuttons

Heads for Spring Return Pushbuttons

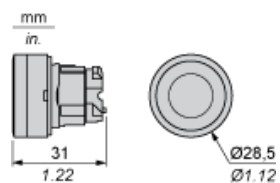
ZB4 BA•, ZB4 BA••



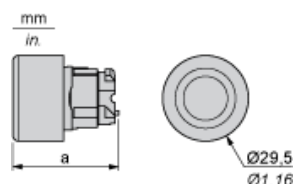
ZB4 BL•, ZB4 BL••



ZB4 BA•4, ZB4 BA•6



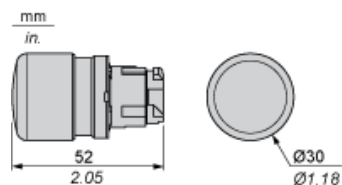
ZB4 BP••, ZB4 BP•S, ZB4 BP•83, ZB4 BP•



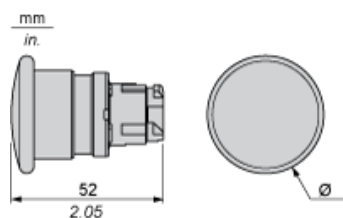
	a in mm	a in in.
ZB4 BP••	36.5	1.44
ZB4 BP•S	33	1.30
ZB4 BP•83	32	1.26
ZB4 BP•	35	1.38

Mushroom Heads for Spring Return Pushbuttons

ZB4 BC•4

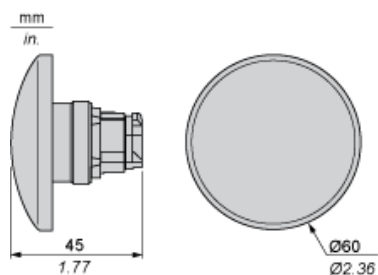


ZB4 BC•, ZB4 BR•



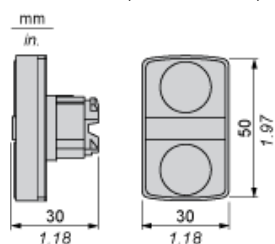
	Ø in mm	Ø in in.
ZB4 BC•	40	1.57
ZB4 BR•	60	2.36

ZB4 BR•16

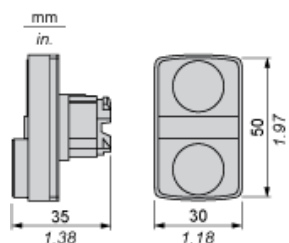


Heads for Double-Headed, Spring Return Pushbuttons

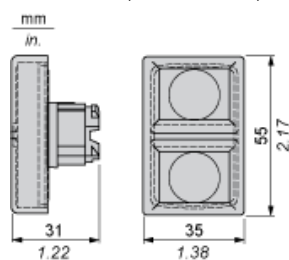
ZB4 BA712•, ZB4 BA734•, ZB4 BA79



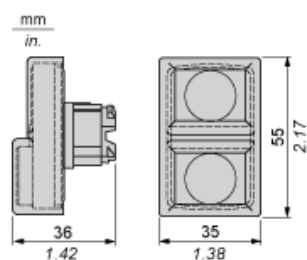
ZB4 BL734•



ZB4 BA712•, ZB4 BA734•, ZB4 BA79+ boot ZBA708

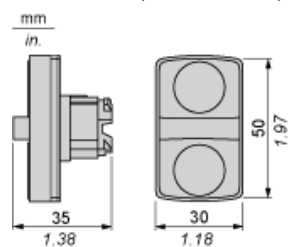


ZB4 BL734• + boot ZBA710

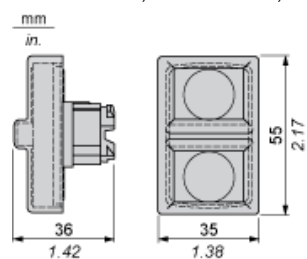


Heads for Triple-Headed, Spring Return Pushbuttons

ZB4 BA7313•, ZB4 BA711••, ZB4 BA72124, ZB4 BA791

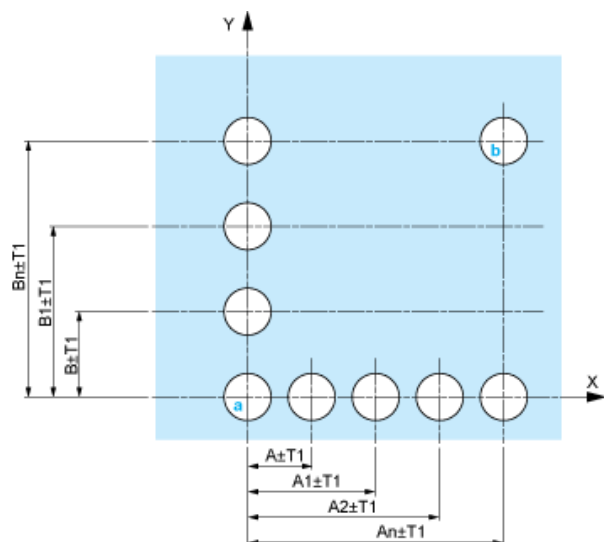


ZB4 BA7313•, ZB4 BA711••, ZB4 BA72124, ZB4 BA791 + boot ZBA709



Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board	Connection by Faston Connectors
<p>The diagram shows a 2x2 grid of circular terminals on a light blue rectangular panel. Dimension (1) is the diameter of one terminal. Dimension (2) is the vertical distance between the centers of the two rows of terminals. Dimension (3) is the horizontal distance between the centers of the two columns of terminals. Dimension (4) is the distance from the center of a terminal to the right edge of the panel.</p>	<p>The diagram shows a 2x2 grid of circular terminals on a light blue rectangular panel. Dimension (1) is the diameter of one terminal. Dimension (5) is the vertical distance between the centers of the two rows of terminals. Dimension (6) is the horizontal distance between the centers of the two columns of terminals. Dimension (4) is the distance from the center of a terminal to the right edge of the panel.</p>
<p>(1) Diameter on finished panel or support</p> <p>(2) 40 mm min. / 1.57 in. min.</p> <p>(3) 30 mm min. / 1.18 in. min.</p> <p>(4) $\varnothing 22.5 \text{ mm} / 0.89 \text{ in. recommended } (\varnothing 22.3 \text{ mm }_0^{+0.4} / 0.88 \text{ in. }_0^{+0.016})$</p> <p>(5) 45 mm min. / 1.78 in. min.</p> <p>(6) 32 mm min. / 1.26 in. min.</p>	

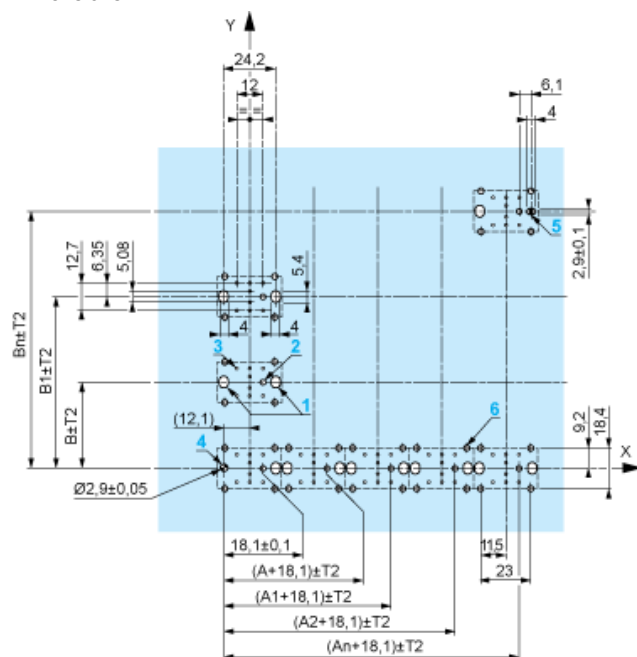
Panel Cut-outs (Viewed from Installer's Side)



- 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)

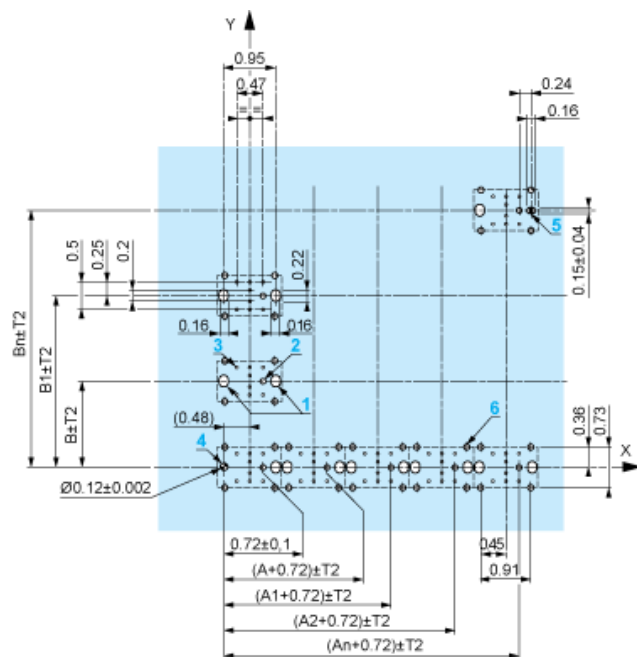
Dimensions in mm



A: 30 mm min.

B: 40 mm min.

Dimensions in in.



A: 1.18 in. min.

B: 1.57 in. min.

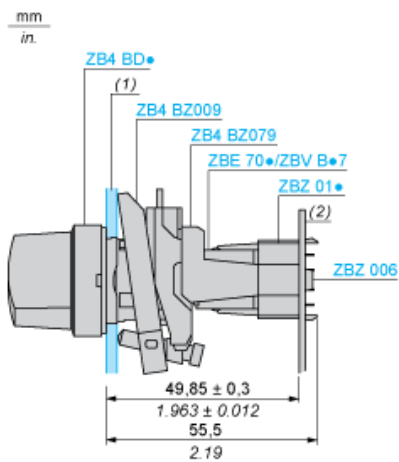
General Tolerances of the Panel and Printed Circuit Board

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

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 ZB4 BZ009: $\pm 2^\circ 30'$ (excluding cut-outs marked a and b).
- Tightening torque of screws ZBZ 006: 0.6 N.m (5.3 lbf.in) 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 (ZB4 BD•, ZB4 BJ•, ZB4 BG•).

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



- (1) Panel
(2) Printed circuit board

Mounting of Adapter (Socket) ZBZ 01•

- 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 × $\varnothing 1.2 \text{ mm} / 0.05 \text{ in.}$ 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•.