

ZB4BS12

black Ø40 mushroom pushbutton head Ø22 latching
key release



Main

Range of product	Harmony XB4
Product or component type	Head for non-illuminated push-button
Device short name	ZB4
Bezel material	Chromium plated metal
Mounting diameter	22 mm
Sale per indivisible quantity	1
Head type	Standard
Shape of signaling unit head	Round
Type of operator	Latching
Reset	Key release
Operator profile	Black mushroom Ø 40 mm unmarked
Type of keylock	Ronis 455
Key withdrawal position	Center

Complementary

CAD overall width	40 mm
CAD overall height	40 mm
CAD overall depth	79 mm
Product weight	0.07 kg
Mechanical durability	500000 cycles
Electrical composition code	C15 for 1 contacts using single blocks in front mounting C15 for 1 contacts using single blocks in front mounting C11 for 3 contacts using single blocks in front mounting C7 for 4 contacts using single blocks in front mounting C8 for 4 contacts using single and double blocks in front mounting C10 for 4 contacts using single and double blocks in front mounting

Environment

protective treatment	TH
ambient air temperature for storage	-40...70 °C
ambient air temperature for operation	-40...70 °C
overvoltage category	Class I conforming to IEC 60536
IP degree of protection	IP67 IP66 conforming to IEC 60529 IP69K IP69
NEMA degree of protection	NEMA 13 NEMA 4X
IK degree of protection	IK03 conforming to IEC 50102
standards	EN/IEC 60947-1 EN/IEC 60947-5-1 EN/IEC 60947-5-4 EN/IEC 60947-5-5 JIS C 4520 UL 508 CSA C22.2 No 14
product certifications	BV CSA DNV GL LROS (Lloyds register of shipping)

The information provided in this documentation contains general descriptions and/or technical characteristics of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

RINA
UL listed

vibration resistance	5 gn (f = 2...500 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

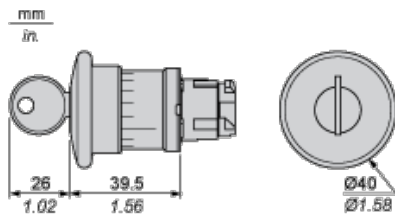
Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0627 - Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available
Product end of life instructions	Need no specific recycling operations

Contractual warranty

Warranty period	18 months 18 months
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Dimensions



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	Connection by Faston Connectors
<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 mm / 0.89 in. recommended (\varnothing 22.3 mm $^{+0.4}_0$ / 0.88 in. $^{+0.016}_0$)</p> <p>(5) 45 mm min. / 1.78 in. min.</p> <p>(6) 32 mm min. / 1.26 in. min.</p>	

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)

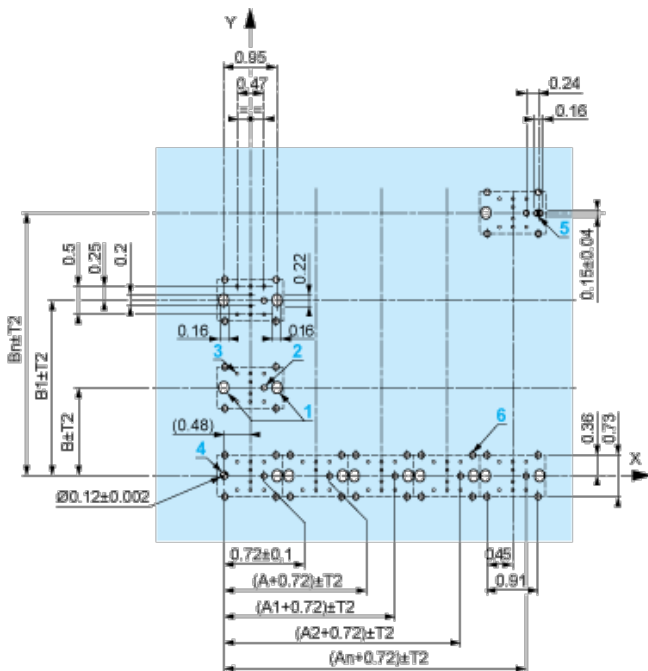
Dimensions in mm



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

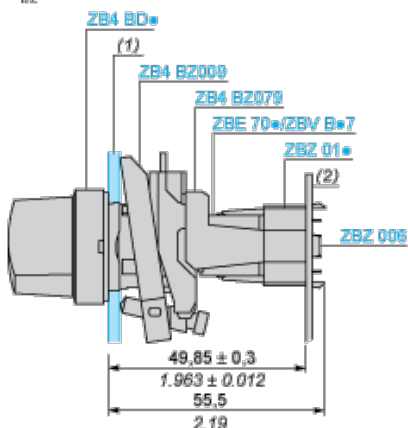
The cumulative tolerance must not exceed 0.3 mm / 0.012 in: $T1 + T2 = 0.3 \text{ mm max.}$

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 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**.

$\frac{\text{mm}}{\text{in.}}$



(1) Panel

(2) Printed circuit board

Mounting of Adapter (Socket) ZBZ 01•

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

Electrical Composition Corresponding to Code C7



Electrical Compositions Corresponding to Code C8



Electrical Compositions Corresponding to Code C10

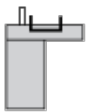


Electrical Composition Corresponding to Codes C9, C11, SF1 and SR1



Electrical Composition Corresponding to Code C15

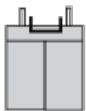
1 N/O



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

