

Product data sheet

Specifications



black Ø40 mushroom pushbutton head Ø22 latching key release

ZB5AS12C

⚠ Discontinued on: 29/01/2021

⚠ Discontinued

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 | latching |
| Reset | Key release |
| Operator Profile | Black mushroom Ø 40 mm, unmarked |
| Type Of Keylock | Special key |
| Key Withdrawal Position | Center |

Complementary

| | |
|-----------------------------|--|
| Cad Overall Width | 40 mm |
| Cad Overall Height | 40 mm |
| Cad Overall Depth | 79 mm |
| Net Weight | 0.044 kg |
| Mechanical Durability | 500000 cycles |
| Station Name | XALD 1 cut-out XALK 1 cut-out |
| Electrical Composition Code | 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 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 |
| Compatibility Code | ZB5 |

Environment

| | |
|---------------------------------------|-------------|
| Protective Treatment | TH |
| Ambient Air Temperature For Storage | -40...70 °C |
| Ambient Air Temperature For Operation | -25...70 °C |

Disclaimer: 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

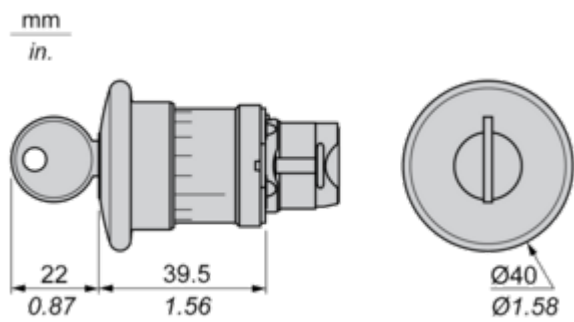
| | |
|------------------------------------|--|
| Overvoltage Category | Class II conforming to IEC 60536 |
| Ip Degree Of Protection | IP66 conforming to IEC 60529 |
| Nema Degree Of Protection | NEMA 13 NEMA 4X |
| Resistance To High Pressure Washer | 7000000 Pa at 55 °C, distance : 0.1 m |
| Ik Degree Of Protection | IK03 conforming to IEC 50102 |
| Product Certifications | CSA BV UL listed DNV GL RINA LROS (Lloyds register of shipping) |
| 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 |

Contractual warranty

| | |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

Dimensions Drawings

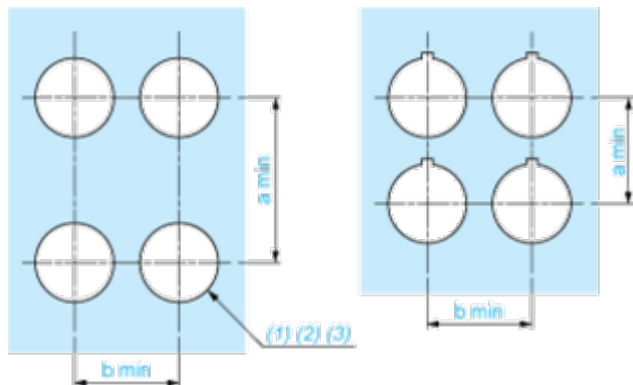
Dimensions



Mounting and Clearance

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

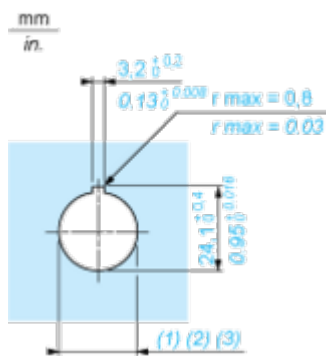
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- (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 ($\text{Ø}22.3 \begin{smallmatrix} +0.4 \\ 0 \end{smallmatrix}$) / Ø0.89 in. recommended ($\text{Ø}0.88 \text{ in.} \begin{smallmatrix} +0.016 \\ 0 \end{smallmatrix}$)

| 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 |

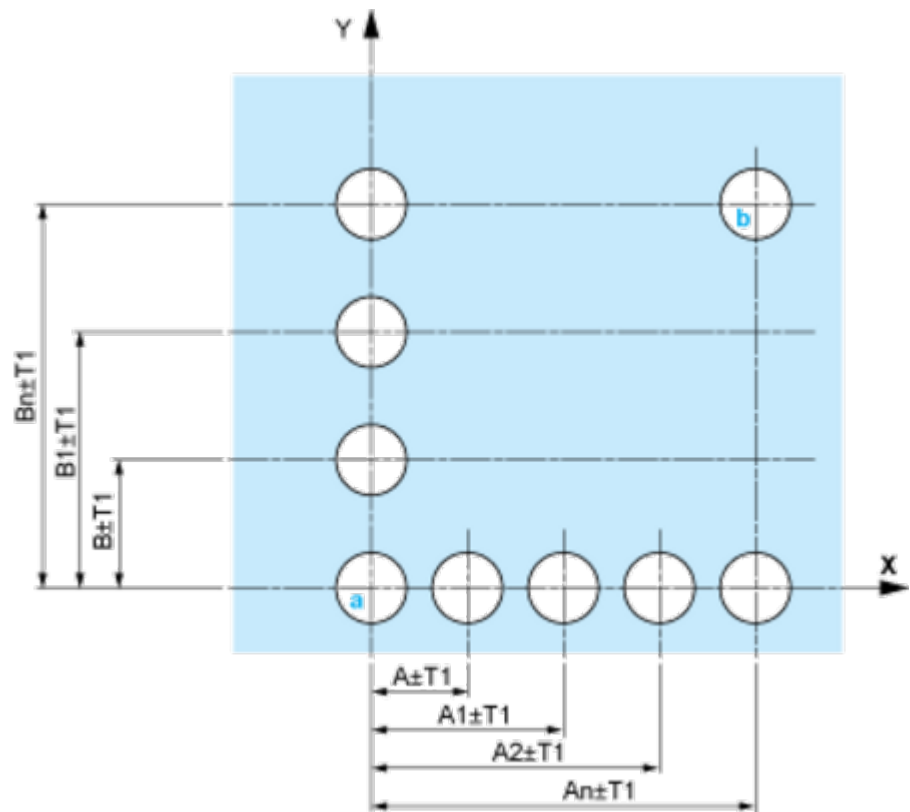
Detail of Lug Recess



- (1) Diameter on finished panel or support
- (2) For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended.
- (3) Ø22.5 mm recommended ($\text{Ø}22.3 \begin{smallmatrix} +0.4 \\ 0 \end{smallmatrix}$) / Ø0.89 in. recommended ($\text{Ø}0.88 \text{ in.} \begin{smallmatrix} +0.016 \\ 0 \end{smallmatrix}$)

Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

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

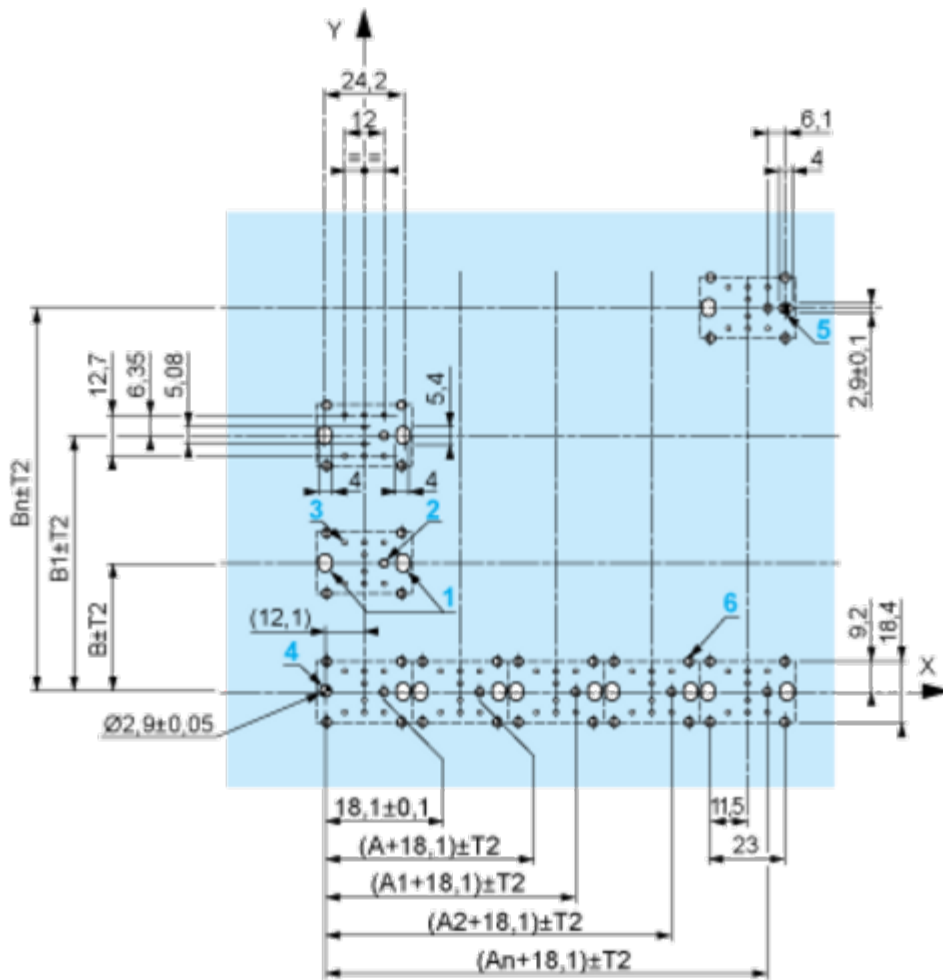


A: 30 mm min. / 1.18 in. min.

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

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

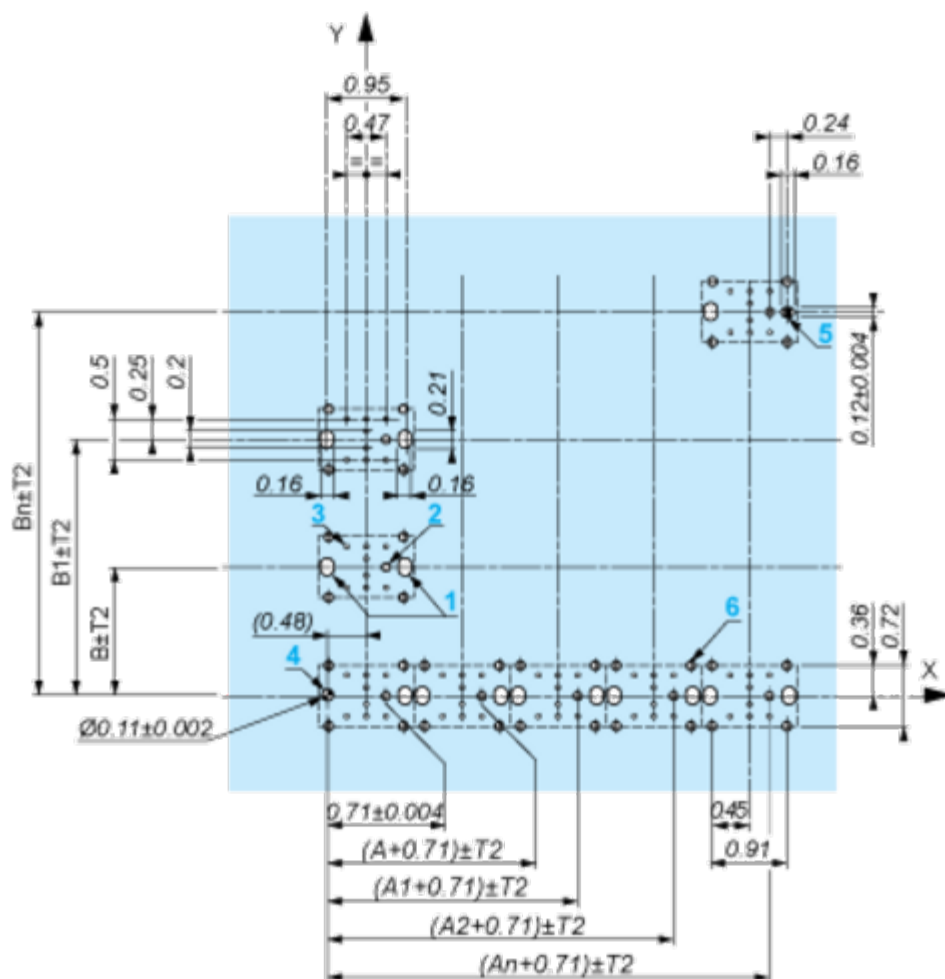
Dimensions in mm



A: 30 mm min.

B: 40 mm min.

Dimensions in in.



A: 1.18 in. min.

B: 1.57 in. min.

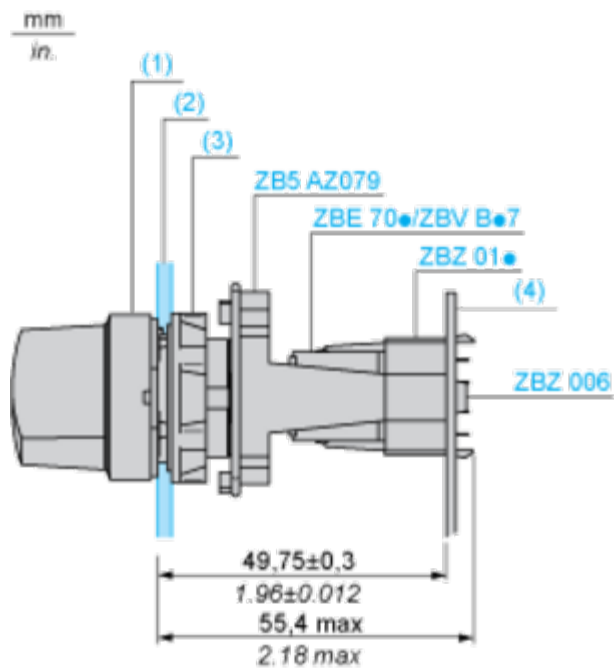
General Tolerances of the Panel and Printed Circuit Board

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 \pm 0.1 / 0.88 in. \pm 0.004
- Orientation of body/fixing collar ZB5AZ009: \pm 2° 30' (excluding cut-outs marked **a** and **b**).
- Tightening torque of screws ZB2006: 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•

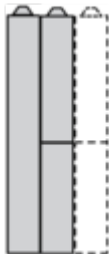
Dimensions An + 18.1 relate to the Ø 2.4 mm ± 0.05 / 0.09 in. ± 0.002 holes for centring adapter ZBZ01•.

Technical Description

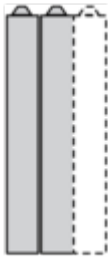
Electrical Composition Corresponding to Code C7



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

