



Main

| | |
|---------------------------------|--|
| Range of product | Harmony XB5 |
| Product or component type | Head for non-illuminated push-button |
| Device short name | ZB5 |
| Product compatibility | Not compatible with legend holder |
| Bezel material | Dark grey plastic |
| Mounting diameter | 22 mm |
| Head type | Standard |
| Sale per indivisible quantity | 1 |
| Shape of signaling unit head | Round |
| Type of operator | spring return |
| Operator profile | Green flush, unmarked |
| Operator additional information | Clear boot for insertion of protected legend within head |

Complementary

| | |
|-----------------------------|---|
| CAD overall width | 30 mm |
| CAD overall height | 30 mm |
| CAD overall depth | 37 mm |
| Net weight | 0.023 kg |
| Mechanical durability | 10000000 cycles |
| Station name | XALD 1...5 cut-outs XALK 2...5 cut-outs |
| Electrical composition code | C3 for <6 contacts using single blocks in front mounting C4 for <6 contacts using single and double blocks in front mounting C14 for <2 contacts using single blocks in front mounting SF2 for <2 contacts using single blocks in front mounting SR2 for <2 contacts using single blocks in rear mounting |
| Device presentation | Basic element |

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

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 | IP66 conforming to IEC 60529 IP67 conforming to IEC 60529 IP69 conforming to IEC 60529 IP69K conforming to ISO 20653 |
| 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 | UL 508 EN/IEC 60947-5-4 EN/IEC 60947-1 JIS C8201-5-1 CSA C22.2 No 14 EN/IEC 60947-5-1 JIS C8201-1 |
| Product certifications | LROS (Lloyds register of shipping) RINA CSA BV GL UL listed DNV |
| 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 |
| Vibration resistance | 5 gn (f= 2...500 Hz) conforming to IEC 60068-2-6 |

Packing Units

| | |
|------------------|----------|
| Package 1 Weight | 0.023 kg |
| Package 1 Height | 0.540 dm |
| Package 1 width | 0.340 dm |
| Package 1 Length | 0.880 dm |

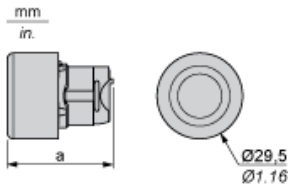
Offer Sustainability

| | |
|----------------------------|---|
| Sustainable offer status | Green Premium product |
| REACH Regulation | REACH Declaration |
| REACH free of SVHC | Yes |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |
| Mercury free | Yes |
| RoHS exemption information | Yes |
| China RoHS Regulation | China RoHS declaration |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | End of Life Information |

Contractual warranty

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

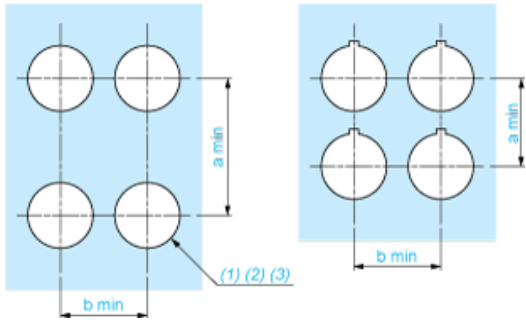
Dimensions



| | a in mm | a in in. |
|----------|---------|----------|
| ZB5AP•• | 36.5 | 1.44 |
| ZB5AP•S | 33 | 1.30 |
| ZB5AP•83 | 32 | 1.26 |
| ZB5AP• | 35 | 1.38 |

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) $\varnothing 22.5$ mm recommended ($\varnothing 22.3 \text{ }_0^{+0.4}$) / $\varnothing 0.89$ in. recommended ($\varnothing 0.88 \text{ in. }_0^{+0.016}$)

| 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 |

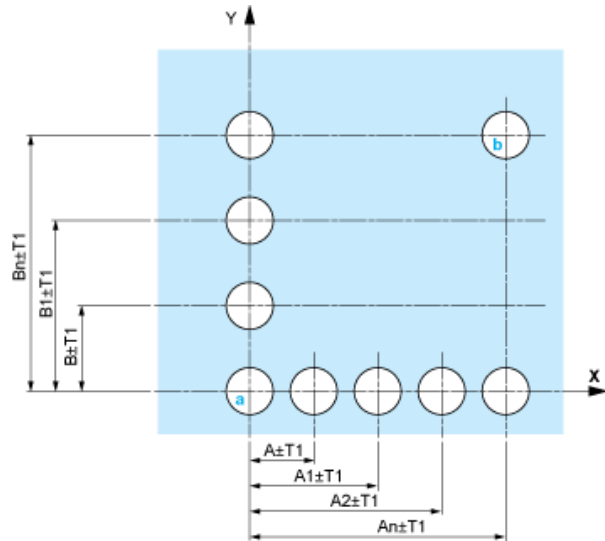
Detail of Lug Recess



- (1) Diameter on finished panel or support
- (2) For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended.
- (3) $\varnothing 22.5$ mm recommended ($\varnothing 22.3 \text{ }_0^{+0.4}$) / $\varnothing 0.89$ in. recommended ($\varnothing 0.88 \text{ in. }_0^{+0.016}$)

Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

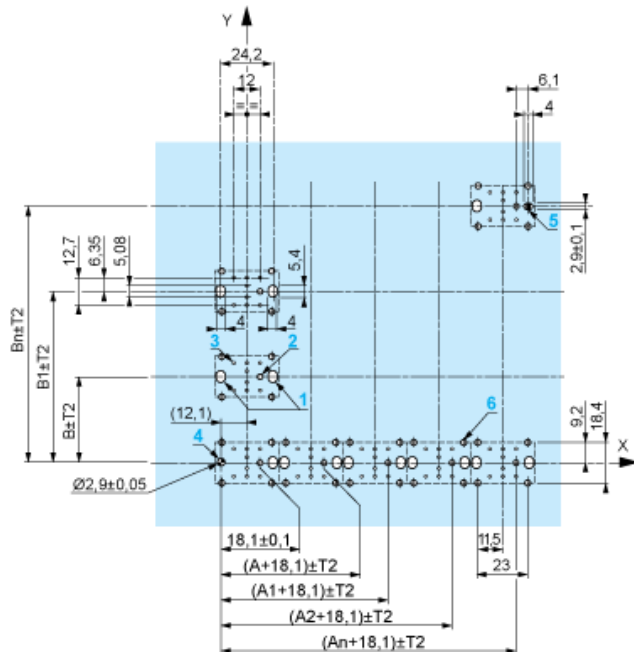
Panel Cut-outs (Viewed from Installer's Side)



- 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.

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

Mounting of Adapter (Socket) ZBZ01•

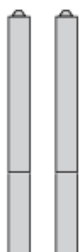
- 1 2 elongated holes for ZBZ006 screw access
- 2 1 hole \varnothing 2.4 mm \pm 0.05 / 0.09 in. \pm 0.002 for centring adapter ZBZ01•
- 3 8 \times \varnothing 1.2 mm / 0.05 in. holes
- 4 1 hole \varnothing 2.9 mm \pm 0.05 / 0.11 in. \pm 0.002, for aligning the printed circuit board (with cut-out marked a)
- 5 1 elongated hole for aligning the printed circuit board (with cut-out marked b)
- 6 4 holes \varnothing 2.4 mm / 0.09 in. for clipping in adapter ZBZ01•

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

Electrical Composition Corresponding to Code C3



Electrical Composition Corresponding to Code C4



Electrical Composition Corresponding to Codes C14, SF2 and SR2



Legend

Single contact



Double contact



Light block



Possible location

