

Product datasheet

Specifications



clear flush illuminated pushbutton head Ø22 spring return for BA9s bulb

Local distributor code: 237217828 ZB5AW37

Main

| | |
|---------------------------------|----------------------------------|
| Range of product | Harmony XB5 |
| Product or component type | Head for illuminated push-button |
| Device short name | ZB5 |
| Product compatibility | BA 9s |
| Bezel material | Dark grey plastic |
| Mounting diameter | 22 mm |
| Sale per indivisible quantity | 1 |
| Head type | Standard |
| Shape of signaling unit head | Round |
| Type of operator | spring return |
| Operator profile | Clear flush, unmarked |
| Operator additional information | With plain lens |

Complementary

| | |
|------------------------------------|--|
| CAD overall width | 29 mm |
| CAD overall height | 29 mm |
| CAD overall depth | 32 mm |
| Net weight | 0.018 kg |
| Resistance to high pressure washer | 7000000 Pa at 55 °C, distance : 0.1 m |
| Mechanical durability | 10000000 cycles |
| Main group | Illum push-button |
| Group of product | Flush push BA9s |
| Station name | XALD 1...5 cut-outs XALK 2...5 cut-outs |
| Cap/Operator or lens colour | Clear |
| Marking | Unmarked |
| Electrical composition code | M7 for <6 contacts using single blocks in front mounting with BA 9s M8 for <6 contacts using single and double blocks in front mounting with BA 9s M9 for <2 contacts using single blocks in front mounting with BA 9s and transformer MF2 for <2 contacts using single blocks in front mounting with BA 9s |
| Device presentation | Basic sub-assemblies |

Environment

| | |
|---------------------------------------|--|
| Protective treatment | TC |
| Ambient air temperature for storage | -40...70 °C |
| Ambient air temperature for operation | -40...55 °C |
| Overvoltage category | Class II conforming to IEC 60536 |
| IP degree of protection | IP66 conforming to IEC 60529 IP67 IP69 IP69K |
| NEMA degree of protection | NEMA 13 NEMA 4X |
| IK degree of protection | IK05 conforming to EN 50102 |
| Standards | EN/IEC 60947-1 CSA C22.2 No 14 EN/IEC 60947-5-4 JIS C8201-5-1 EN/IEC 60947-5-1 GB 14048.5 UL 508 JIS C8201-1 |
| Product certifications | GL BV LROS (Lloyds register of shipping) UL listed DNV CSA |
| 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 |

Packing Units

| | |
|------------------------------|----------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Weight | 18.0 g |
| Package 1 Height | 4.7 cm |
| Package 1 width | 5.3 cm |
| Package 1 Length | 3.5 cm |
| Unit Type of Package 2 | S01 |
| Number of Units in Package 2 | 50 |
| Package 2 Weight | 1.097 kg |
| Package 2 Height | 15 cm |
| Package 2 width | 15 cm |
| Package 2 Length | 40 cm |

Offer Sustainability

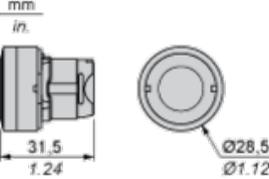
| | |
|--------------------------|---|
| Sustainable offer status | Green Premium product |
| REACH Regulation | REACH Declaration |
| REACH free of SVHC | Yes |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |
| Mercury free | Yes |

| | |
|-----------------------------------|---|
| RoHS exemption information | Yes |
| China RoHS Regulation | China RoHS declaration |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | End of Life Information |

Contractual warranty

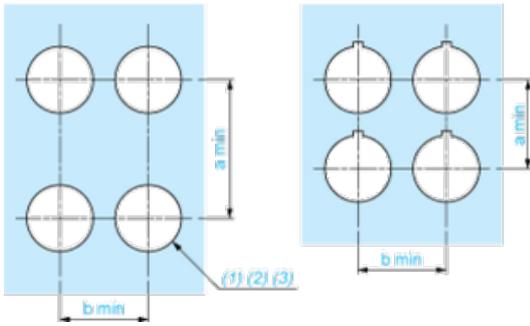
| | |
|-----------------|-----------|
| Warranty | 18 months |
|-----------------|-----------|

Dimensions



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

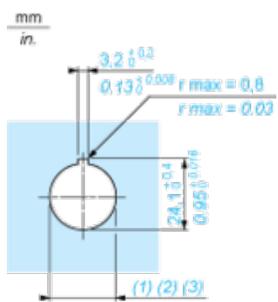
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- (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 |

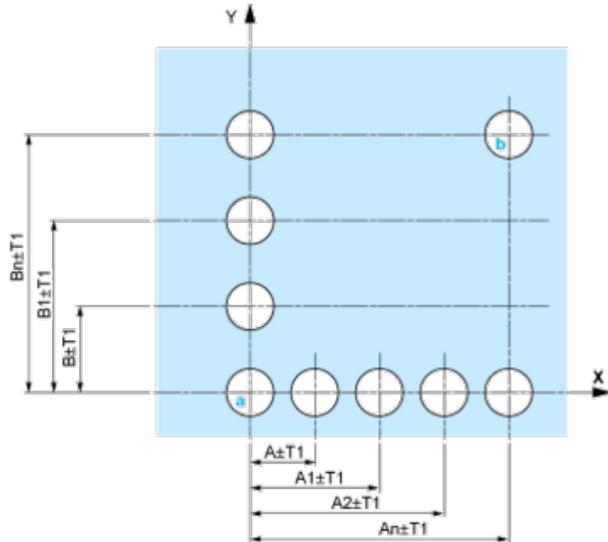
Detail of Lug Recess



- (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)

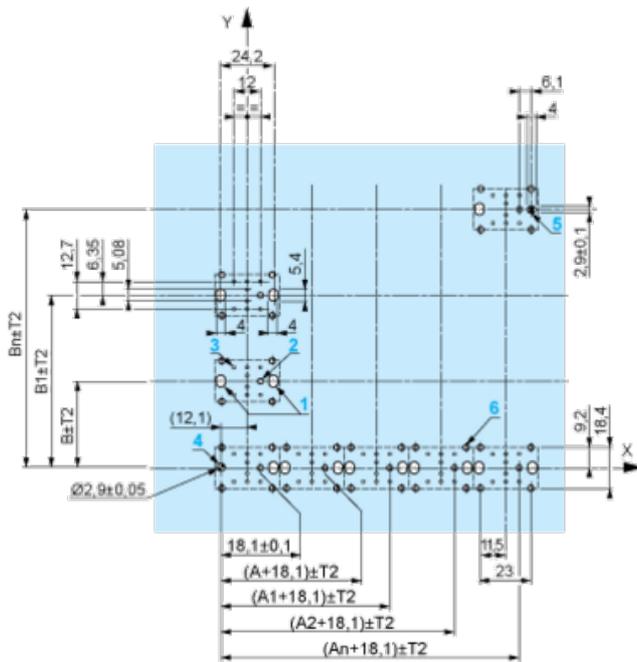


A: 30 mm min. / 1.18 in. min.

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

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

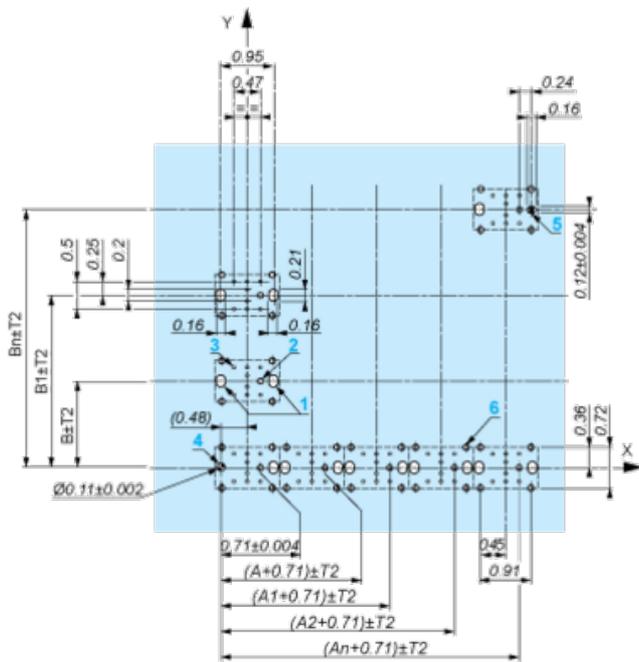
Dimensions in mm



A: 30 mm min.

B: 40 mm min.

Dimensions in in.



A: 1.18 in. min.

B: 1.57 in. min.

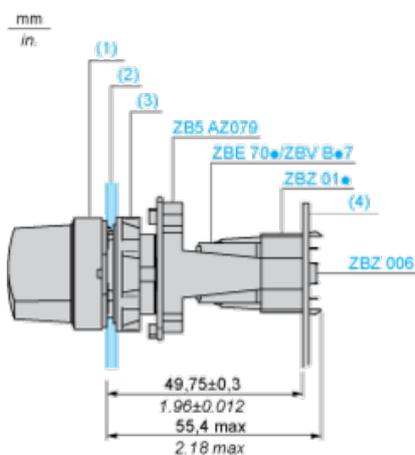
General Tolerances of the Panel and Printed Circuit Board

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 Codes M1 and M7



Electrical Composition Corresponding to Codes M2 and M8



Electrical Composition Corresponding to Code M9



Electrical Composition Corresponding to Codes M5, M10, MF1, MR1 and MF2



Legend

Single contact



Double contact



Light block



Possible location

