



## Main

|                                 |                                      |
|---------------------------------|--------------------------------------|
| Range of product                | Harmony XB5                          |
| Product or component type       | Head for non-illuminated push-button |
| Device short name               | ZB5                                  |
| Product compatibility           | 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                | Blue flush, unmarked                 |
| Operator additional information | Coloured boot                        |

## Complementary

|                             |  |
|-----------------------------|--|
| CAD overall width           | 30 mm  |
| CAD overall height          | 30 mm  |
| CAD overall depth           | 33 mm  |
| Product weight              | 0.021 kg   |
| Mechanical durability       | 10000000 cycles  |
| Station name                | XALD 1...5 cut-outs<br>XALK 2...5 cut-outs   |
| Electrical composition code | C1 for <9 contacts using single blocks in front mounting<br>C2 for <9 contacts using single and double blocks in front mounting<br>C11 for <3 contacts using single blocks in front mounting<br>C15 for <1 contacts using single blocks in front mounting<br>SF1 for <3 contacts using single blocks in front mounting<br>SR1 for <3 contacts using single blocks in rear mounting |
| Device presentation         | Basic element  |

## 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<br>IP67 conforming to IEC 60529<br>IP69 conforming to IEC 60529<br>IP69K conforming to ISO 20653  |
| NEMA degree of protection             | NEMA 13<br>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                             | JIS C8201-5-1<br>CSA C22.2 No 14<br>EN/IEC 60947-5-4<br>EN/IEC 60947-5-1<br>EN/IEC 60947-1<br>UL 508<br>JIS C8201-1  |
| Product certifications                | LROS (Lloyds register of shipping)<br>UL listed<br>DNV<br>RINA<br>CSA<br>BV<br>GL  |
| Shock resistance                      | 30 gn (duration = 18 ms) for half sine wave acceleration conforming to IEC 60068-2-27<br>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   |

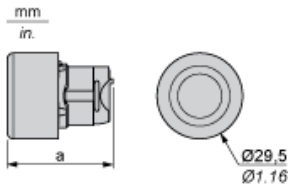
## Offer Sustainability

|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| RECh Regulation            | <a href="#">RECh Declaration</a>  |
| RECh free of SVHC          | Yes   |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)<br><a href="#">EU RoHS Declaration</a> |
| Toxic heavy metal free     | Yes   |
| Mercury free               | Yes   |
| RoHS exemption information | <a href="#">Yes</a>   |
| China RoHS Regulation      | <a href="#">China RoHS declaration</a>  |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>   |
| Circularity Profile        | <a href="#">End of Life Information</a>   |

## 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     |

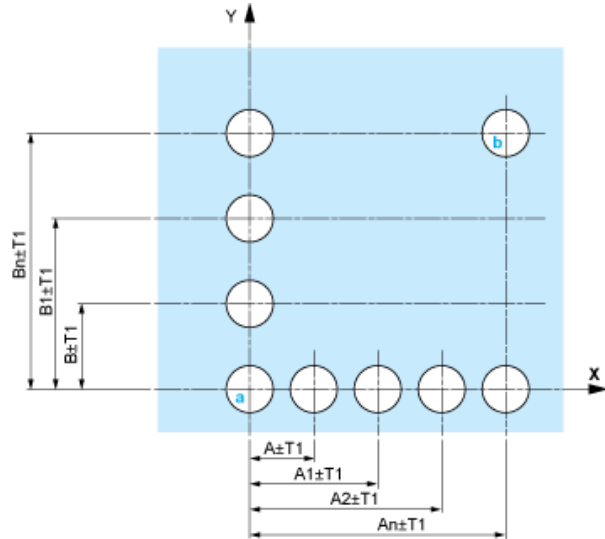
Detail of Lug Recess



- (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

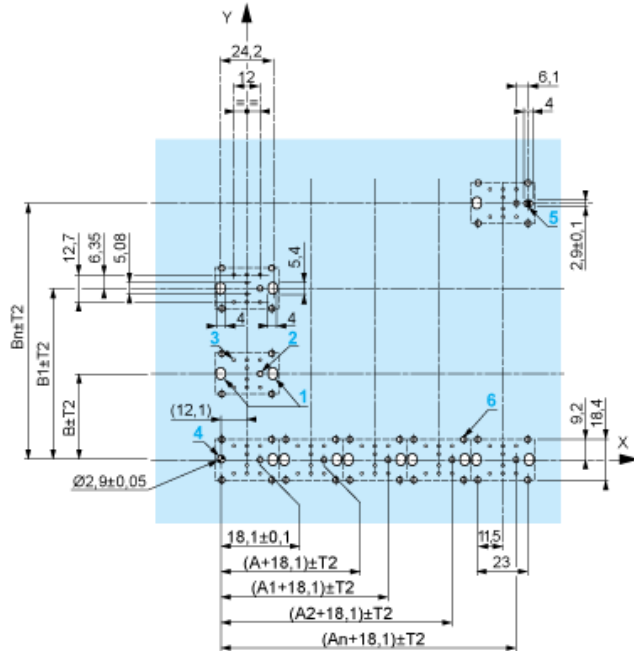
Panel Cut-outs (Viewed from Installer's Side)



- 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•.

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Electrical Composition Corresponding to Code C1

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Electrical Composition Corresponding to Code C2

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

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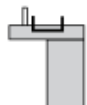
Electrical Composition Corresponding to Code C15

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1 N/O



1 N/C



1 N/O + N/C or 1 N/O + N/O or 1 N/C + N/C



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Legend

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Single contact



Double contact



Light block



Possible location

