



### Main

Range of product	Harmony XB5
Product or component type	Head for pilot light
Product compatibility	BA 9s
Device short name	ZB5
Bezel material	Plastic
Mounting diameter	22 mm
Sale per indivisible quantity	1
Shape of signaling unit head	Round
Cap/operator or lens colour	Red
Operator additional information	With plain lens

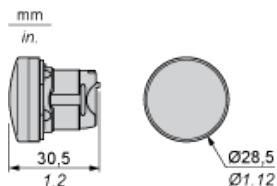
### Complementary

CAD overall width	29 mm
CAD overall height	29 mm
CAD overall depth	31 mm
Product weight	0.018 kg
Station name	XALD 1...5 cut-outs XALK 2...5 cut-outs
Electrical composition code	P3 in front mounting with BA 9s P4 in front mounting with BA 9s and transformer PF2 in front mounting with BA 9s

### Environment

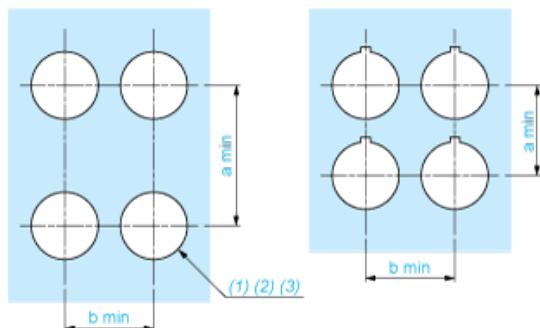
protective treatment	TH
ambient air temperature for storage	-40...70 °C
ambient air temperature for operation	-25...70 °C
class of protection against electric shock	Class II IEC 60536
IP degree of protection	IP66 conforming to IEC 60529
NEMA degree of protection	NEMA 13 NEMA 4X
resistance to high pressure washer	7000000 Pa at 55 °C, distance: 0.1 m
IK degree of protection	IK05 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
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

### Dimensions



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

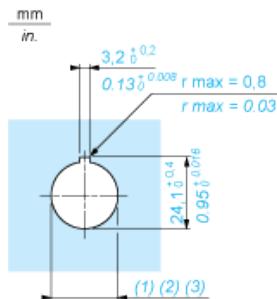
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- (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) Ø22.5 mm recommended ( $\text{Ø}22.3 {}^{+0.4} \text{ mm}$ ) / Ø0.89 in. recommended ( $\text{Ø}0.88 \text{ in.} {}^{+0.016}$ )

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

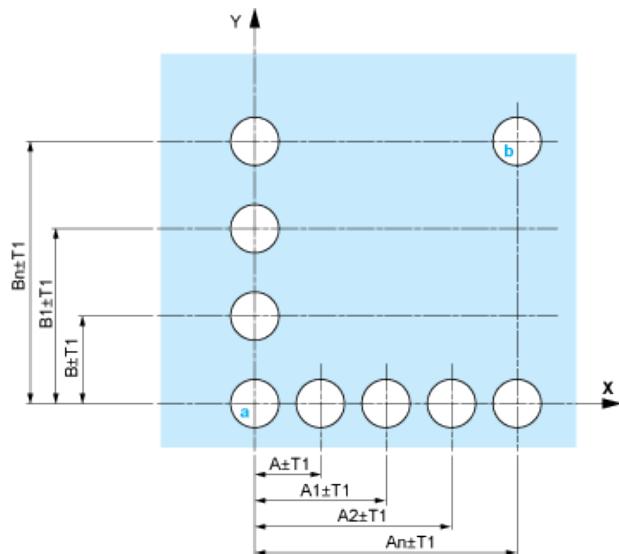
### Detail of Lug Recess



- (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) Ø22.5 mm recommended ( $\text{Ø}22.3 {}^{+0.4} \text{ mm}$ ) / Ø0.89 in. recommended ( $\text{Ø}0.88 \text{ in.} {}^{+0.016}$ )

## Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

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

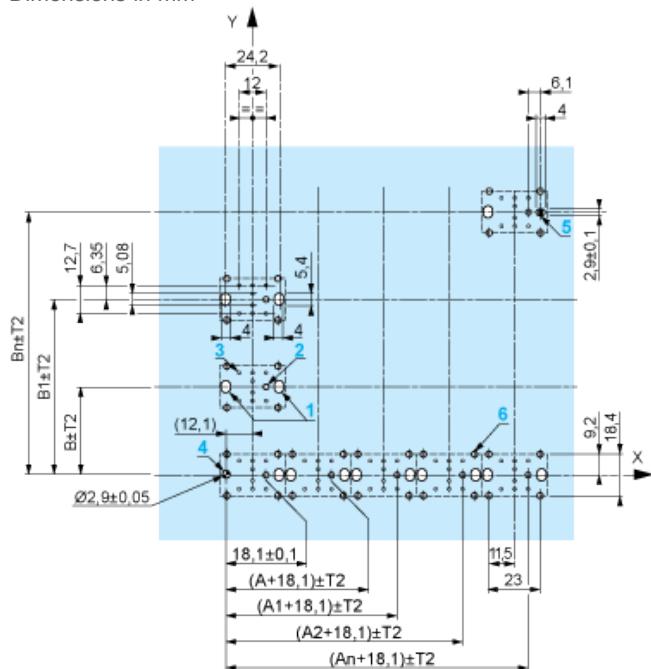


A: 30 mm min. / 1.18 in. min.

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

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

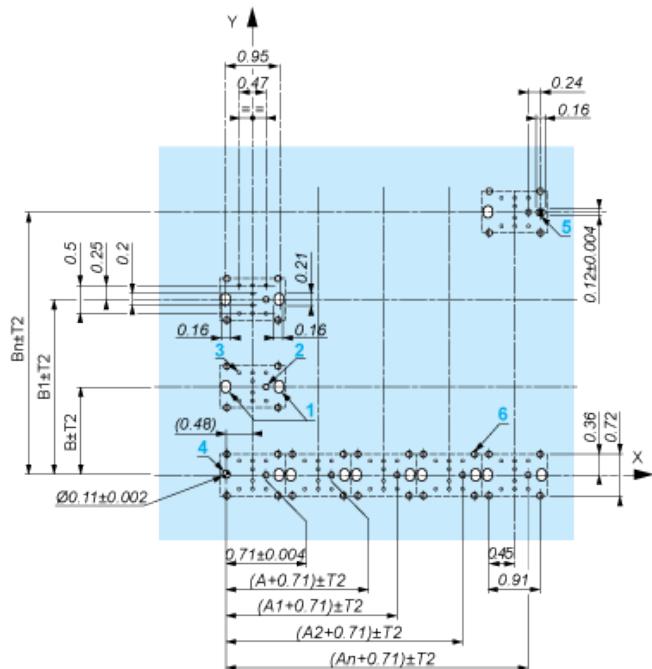
Dimensions in mm



A: 30 mm min.

B: 40 mm min.

Dimensions in in.



A: 1.18 in. min.

B: 1.57 in. min.

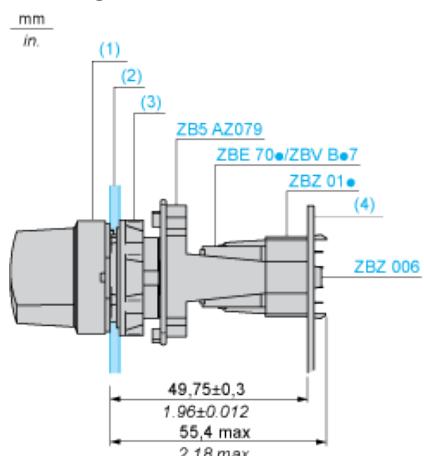
## General Tolerances of the Panel and Printed Circuit Board

The cumulative tolerance must not exceed 0.3 mm / 0.012 in.:  $T1 + T2 = 0.3$  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 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  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 holes for centring adapter ZBZ01•.

## Electrical Composition Corresponding to Codes P1, P3, PF1, PR1 and PF2

Light block



## Electrical Composition Corresponding to Code P4



### Legend

Single contact



Double contact



Light block



Possible location

