

# Product data sheet

Specifications



Head for illuminated push button,  
Harmony XB5, plastic, flush, white,  
22mm, spring return, plain lens for  
BA9s bulb

ZB5AW31

## 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	White flush, unmarked
Operator additional information	With plain lens

## Complementary

CAD overall width	29 mm
CAD overall height	29 mm
CAD overall depth	32 mm
Product weight	0.018 kg
Resistance to high pressure washer	7000000 Pa at 55 °C, distance : 0.1 m
Mechanical durability	10000000 cycles
Station name	XALD 1...5 cut-outs XALK 2...5 cut-outs
Cap/operator or lens colour	White
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 IEC 62262
Standards	UL 508 IEC 60947-5-4 IEC 60947-1 GB 14048.5 JIS C8201-5-1 IEC 60947-5-1 CSA C22.2 No 14 JIS C8201-1
Product certifications	CSA DNV BV LROS (Lloyds register of shipping) UL listed
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 Height	3.500 cm
Package 1 Width	4.500 cm
Package 1 Length	5.000 cm
Package 1 Weight	18.000 g
Unit Type of Package 2	S01
Number of Units in Package 2	50
Package 2 Height	15.000 cm
Package 2 Width	15.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	1.036 kg
Unit Type of Package 3	P06
Number of Units in Package 3	1600
Package 3 Height	75.000 cm
Package 3 Width	60.000 cm
Package 3 Length	80.000 cm
Package 3 Weight	41.152 kg

## Contractual warranty

Warranty	18 months
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Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

### Environmental footprint

Total lifecycle Carbon footprint **1**

Environmental Disclosure [Product Environmental Profile](#)

## Use Better

### Materials and Substances

Packaging made with recycled cardboard **No**

Packaging without single use plastic **No**

[EU RoHS Directive](#) **Pro-active compliance (Product out of EU RoHS legal scope)**

California proposition 65 **WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](#)**

## Use Again

### Repack and remanufacture

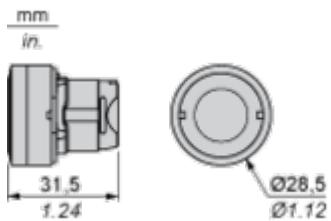
End of life manual availability [End of Life Information](#)

Take-back **No**

## Dimensions Drawings

### Dimensions

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## 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



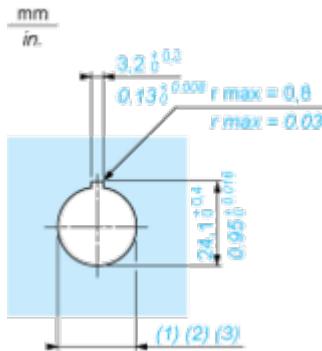
(1) Diameter on finished panel or support

(2) For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended.

(3) Ø22.5 mm recommended ( $\varnothing 22.3^{+0.4}_0$ ) / Ø0.89 in. recommended ( $\varnothing 0.88^{+0.016}_0$ )

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



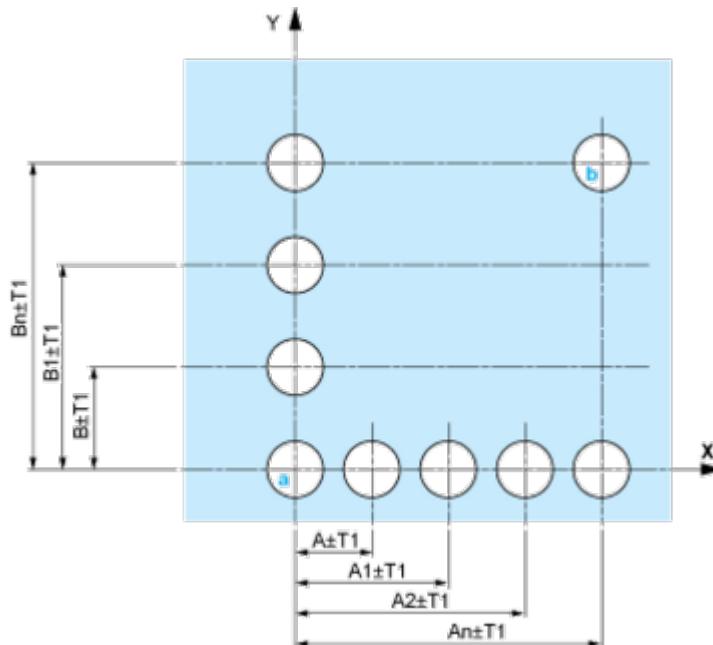
(1) Diameter on finished panel or support

(2) For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended.

(3) Ø22.5 mm recommended ( $\varnothing 22.3^{+0.4}_0$ ) / Ø0.89 in. recommended ( $\varnothing 0.88^{+0.016}_0$ )

Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

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

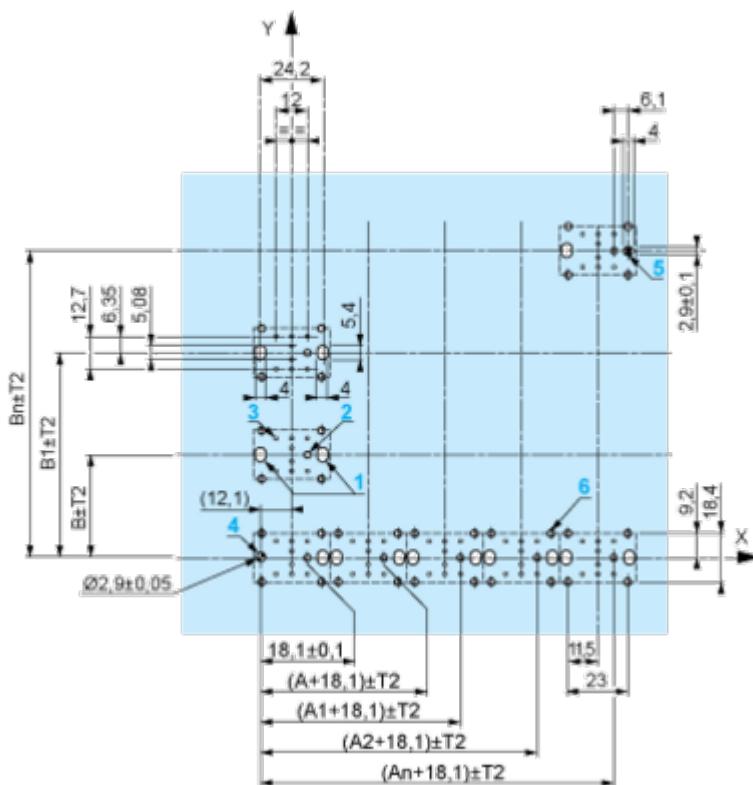


A: 30 mm min. / 1.18 in. min.

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

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

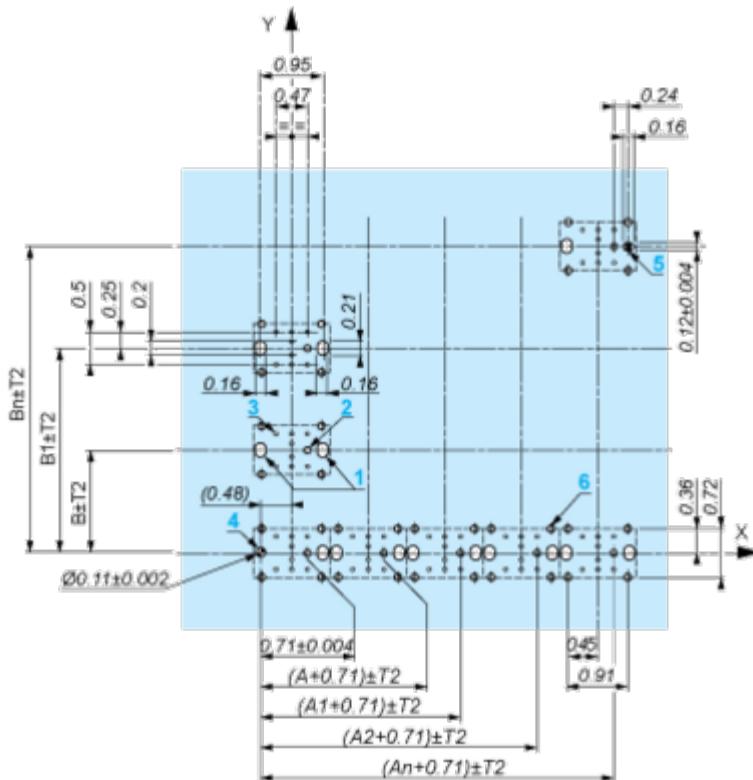
Dimensions in mm



A: 30 mm min.

B: 40 mm min.

Dimensions in in.



A: 1.18 in. min.

B: 1.57 in. min.

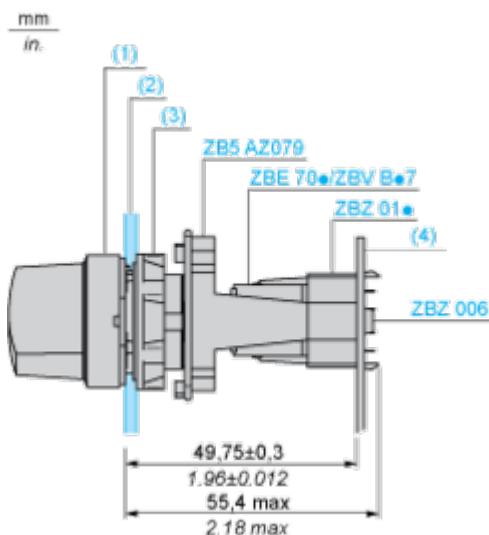
## General Tolerances of the Panel and Printed Circuit Board

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•**

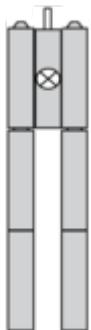
- 1 2 elongated holes for ZBZ006 screw access
- 2 1 hole Ø 2.4 mm ± 0.05 / 0.09 in. ± 0.002 for centring adapter ZBZ01•
- 3 8 × Ø 1.2 mm / 0.05 in. holes
- 4 1 hole Ø 2.9 mm ± 0.05 / 0.11 in. ± 0.002, for aligning the printed circuit board (with cut-out marked a)
- 5 1 elongated hole for aligning the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

Technical Description

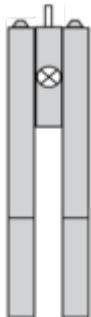
Electrical Composition Corresponding to Codes M1 and M7

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**Electrical Composition Corresponding to Codes M2 and M8**

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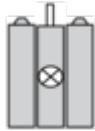
Electrical Composition Corresponding to Code M9

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

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Legend

Single contact



Double contact



Light block

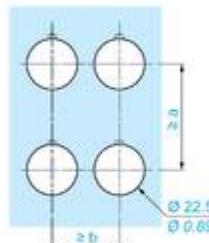
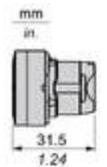


Possible location



## Technical Illustration

## Dimensions



		a (mm)	a (in.)	b (mm)	b (in.)
ZBE*****	ZBV*****	40	1.57	30	1.18
ZBE*****3	ZBV*****3	45	1.77	32	1.26
ZBE*****4	ZBV*****4	40	1.57	30	1.18
ZBE*****5	ZBV*****5	50	1.97	30	1.18
ZBE*****9	ZBV*****9	40	1.57	30	1.18
ZBRT*	ZBRV1	40	1.57	30	1.18

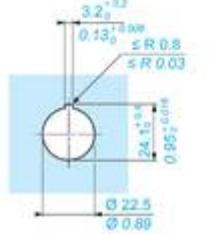


Image of product / Alternate images

Alternative

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Image of product in real life situation

