

# Product data sheet

Specifications



Toggle switch head, Harmony XB4, metal, black, 22mm, 2 positions, stay put

ZB4BD28

## Main

Range of product	Harmony XB4
Product or component type	Head for selector switch
Device short name	ZB4
Bezel material	Chromium plated metal
Mounting diameter	22 mm
Head type	Standard
Sale per indivisible quantity	1

## Complementary

CAD overall width	29 mm
CAD overall height	29 mm
CAD overall depth	45 mm
Product weight	0.026 kg
Overvoltage category	Class I conforming to IEC 60536
Resistance to high pressure washer	7000000 Pa at 55 °C, distance : 0.1 m
Shape of signaling unit head	Round
Type of operator	stay put
Operator profile	Black toggle switch
Operator position information	2 positions 90°
Mechanical durability	500000 cycles
Electrical composition code	C11 for <3 contacts using single blocks in front mounting C12 for <6 contacts using single blocks in front mounting C15 for <1 contacts using single blocks in front mounting C13 for <6 contacts using single and double blocks in front 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
IP degree of protection	IP69 conforming to IEC 60529 IP69K
NEMA degree of protection	NEMA 13 NEMA 4X

<b>IK degree of protection</b>	IK06 conforming to IEC 50102
<b>Standards</b>	UL 508 IEC 60947-5-4 CSA C22.2 No 14 JIS C8201-5-1 IEC 60947-1 IEC 60947-5-5 IEC 60947-5-1 JIS C8201-1
<b>Product certifications</b>	BV CSA DNV LRROS (Lloyds register of shipping) UL listed
<b>Vibration resistance</b>	5 gn (f= 2 ... 500 Hz) conforming to IEC 60068-2-6
<b>Shock resistance</b>	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

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	3.6 cm
<b>Package 1 Width</b>	4.7 cm
<b>Package 1 Length</b>	5.4 cm
<b>Package 1 Weight</b>	32.0 g
<b>Unit Type of Package 2</b>	S03
<b>Number of Units in Package 2</b>	200
<b>Package 2 Height</b>	30 cm
<b>Package 2 Width</b>	30 cm
<b>Package 2 Length</b>	40 cm
<b>Package 2 Weight</b>	6.878 kg

## Contractual warranty

<b>Warranty</b>	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 Yes

Packaging without single use plastic Yes

[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: Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](#)

## Use Again

### Repack and remanufacture

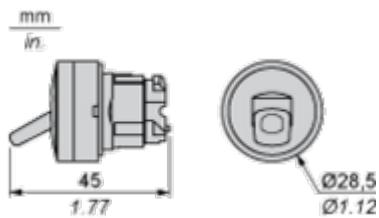
End of life manual availability [End of Life Information](#)

Take-back No

Dimensions Drawings

Dimensions

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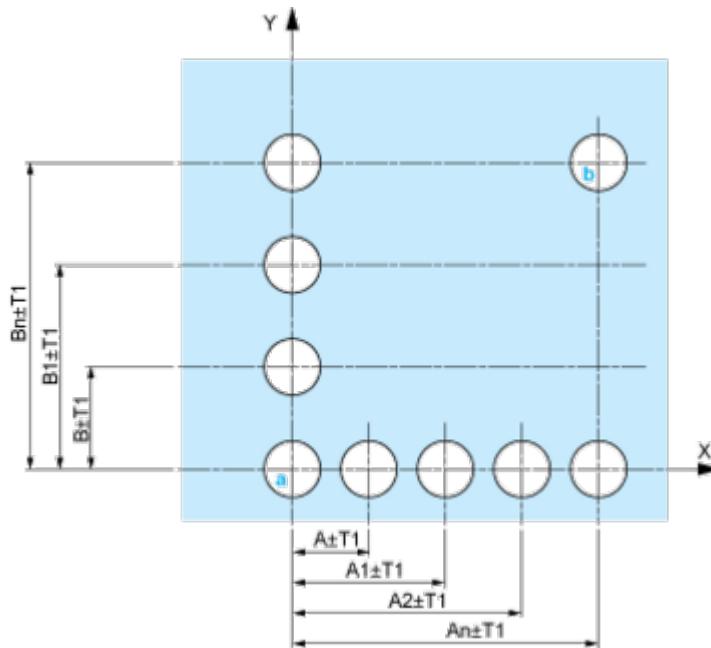
## Mounting and Clearance

**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	Connection by Faston Connectors
 <p>(1) Diameter on finished panel or support (2) 40 mm min. / 1.57 in. min. (3) 30 mm min. / 1.18 in. min. (4) Ø 22.5 mm / 0.89 in. recommended (Ø 22.3 mm <sub>0</sub><sup>+0.4</sup> / 0.88 in. <sub>0</sub><sup>+0.016</sup>) (5) 45 mm min. / 1.78 in. min. (6) 32 mm min. / 1.26 in. min.</p>	 <p>(1) Diameter on finished panel or support (2) 40 mm min. / 1.57 in. min. (3) 30 mm min. / 1.18 in. min. (4) Ø 22.5 mm / 0.89 in. recommended (Ø 22.3 mm <sub>0</sub><sup>+0.4</sup> / 0.88 in. <sub>0</sub><sup>+0.016</sup>) (5) 45 mm min. / 1.78 in. min. (6) 32 mm min. / 1.26 in. min.</p>

## 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:  $T_1 + T_2 = 0.3$  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 ZB4 BZ009:  $\pm 2^{\circ} 30'$  (excluding cut-outs marked **a** and **b**).
- Tightening torque of screws ZBZ 006: 0.6 N.m (5.3 lbf.in) max.
- Allow for one ZB4 BZ079 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 (ZB4 BD•, ZB4 BJ•, ZB4 BG•).

The fixing centers marked **a** and **b** are diagonally opposed and must align with those marked **4** and **5**.



(1) Panel

(2) Printed circuit board

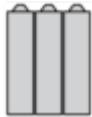
#### Mounting of Adapter (Socket) ZBZ 01•

- 1 2 elongated holes for ZBZ 006 screw access
- 2 1 hole  $\varnothing 2.4$  mm  $\pm 0.05$  /  $0.09$  in.  $\pm 0.002$  for centring adapter ZBZ 01•
- 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 ZBZ 01•

Dimensions An + 18.1 relate to the  $\varnothing 2.4$  mm  $\pm 0.05$  /  $0.09$  in.  $\pm 0.002$  holes for centring adapter ZBZ 01•.

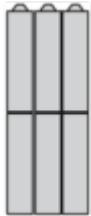
Technical Description

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



**Electrical Composition Corresponding to Code C12**

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**Electrical Composition Corresponding to Code C13**

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**Electrical Composition Corresponding to Code C15**

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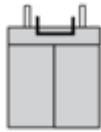
1 N/O



1 N/C



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



Legend

Single contact



Double contact



Light block

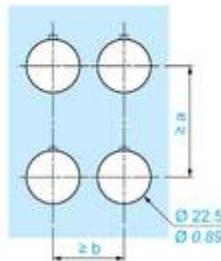
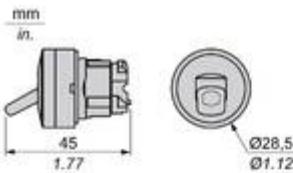


Possible location



## 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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