

# Product datasheet

Specifications



## white illuminated selector switch head Ø22 2-position stay put

Local distributor code: 237117410 ZB4BK1213

### Main

Range of product Harmony XB4

Product or component type Head for illuminated selector switch

Product compatibility Integral LED

Device short name ZB4

Bezel material Chromium plated metal

Head type Standard

Mounting diameter 22 mm

Sale per indivisible quantity 1

Shape of signaling unit head Round

Type of operator stay put

Operator profile White standard handle

Operator position information 2 positions 90°

### Complementary

CAD overall width 29 mm

CAD overall height 29 mm

CAD overall depth 43 mm

Net weight 0.036 kg

Resistance to high pressure washer 7000000 Pa at 55 °C, distance : 0.1 m

Mechanical durability 1000000 cycles

Electrical composition code M3 for <4 contacts using single blocks in front mounting with integral LED  
M6 for <2 contacts using single blocks in front mounting with integral LED and transformer  
M10 for <2 contacts using single blocks in front mounting with integral LED  
M4 for <4 contacts using single and double blocks in front mounting with integral LED

Device presentation Basic element

### Environment

Protective treatment TH

Ambient air temperature for storage -40...70 °C

<b>Ambient air temperature for operation</b>	-40...70 °C
<b>Overvoltage category</b>	Class I conforming to IEC 60536
<b>IP degree of protection</b>	IP66 conforming to IEC 60529 IP67 IP69 IP69K
<b>NEMA degree of protection</b>	NEMA 13 NEMA 4X
<b>IK degree of protection</b>	IK06 conforming to IEC 50102
<b>Standards</b>	EN/IEC 60947-5-1 JIS C8201-5-1 UL 508 EN/IEC 60947-5-5 EN/IEC 60947-1 CSA C22.2 No 14 EN/IEC 60947-5-4 JIS C8201-1
<b>Product certifications</b>	UL listed BV DNV GL LROS (Lloyds register of shipping) CSA
<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 Weight</b>	41.0 g
<b>Package 1 Height</b>	3.5 cm
<b>Package 1 width</b>	5.3 cm
<b>Package 1 Length</b>	5.4 cm
<b>Unit Type of Package 2</b>	P06
<b>Number of Units in Package 2</b>	2000
<b>Package 2 Weight</b>	97.004 kg
<b>Package 2 Height</b>	77 cm
<b>Package 2 width</b>	80 cm
<b>Package 2 Length</b>	60 cm
<b>Unit Type of Package 3</b>	S03
<b>Number of Units in Package 3</b>	250
<b>Package 3 Weight</b>	10.889 kg
<b>Package 3 Height</b>	30 cm
<b>Package 3 width</b>	30 cm
<b>Package 3 Length</b>	40 cm

## Offer Sustainability

<b>Sustainable offer status</b>	Green Premium product
<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>
<b>REACH free of SVHC</b>	Yes
<b>EU RoHS Directive</b>	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>

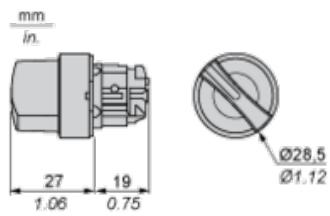
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information

## Contractual warranty

Warranty	18 months
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Dimensions

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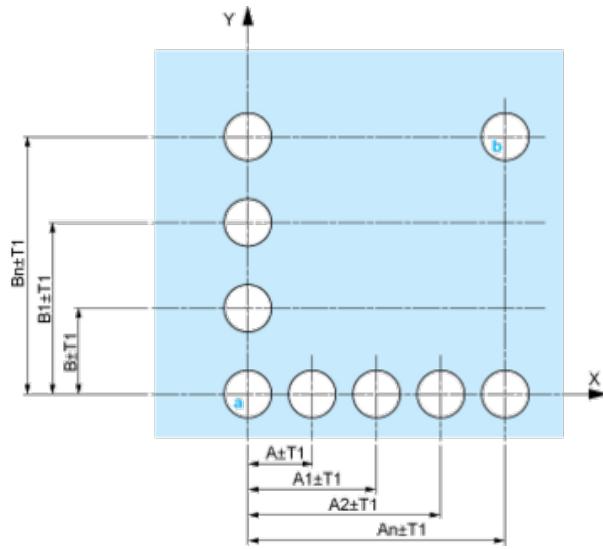


**Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)**

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 <math>^{+0.4}</math> / 0.88 in. <math>^{+0.016}</math>) (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 <math>^{+0.4}</math> / 0.88 in. <math>^{+0.016}</math>) (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)

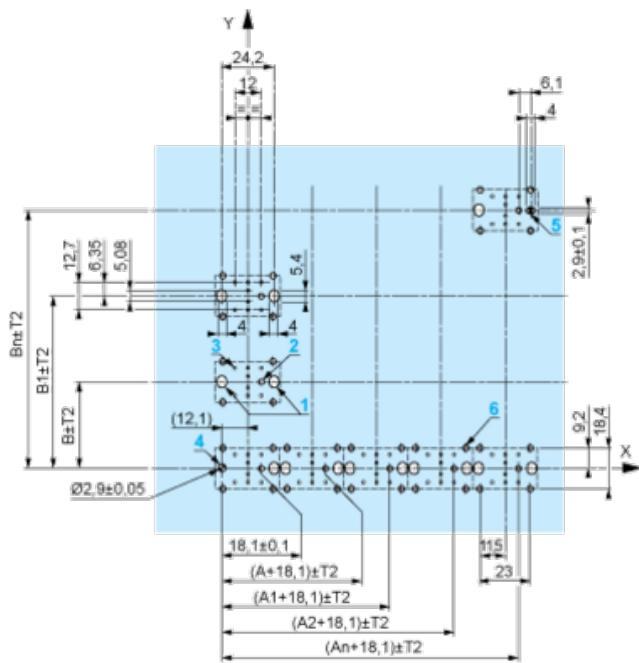


**A:** 30 mm min. / 1.18 in. min.

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

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

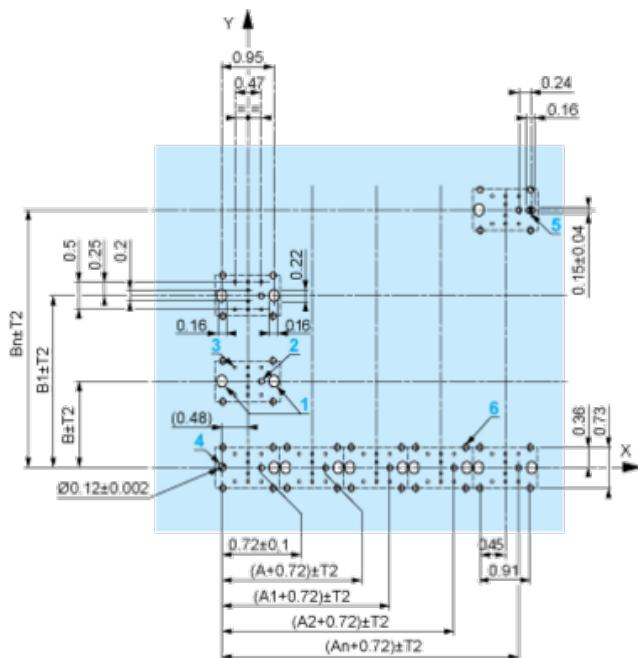
Dimensions in mm



**A:** 30 mm min.

**B:** 40 mm min.

Dimensions in in.



**A:** 1.18 in. min.

**B:** 1.57 in. min.

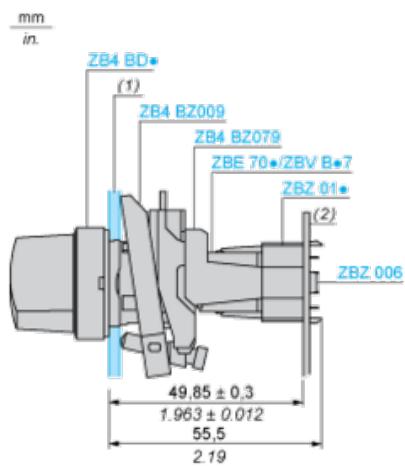
### General Tolerances of the Panel and Printed Circuit Board

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:  $22.4 \text{ mm} \pm 0.1$  /  $0.88 \text{ in.} \pm 0.004$
- 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

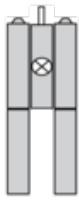
### Mounting of Adapter (Socket) ZBZ 01•

- 1 2 elongated holes for ZBZ 006 screw access
- 2 1 hole  $\varnothing 2.4 \text{ mm} \pm 0.05$  /  $0.09 \text{ in.} \pm 0.002$  for centring adapter ZBZ 01•
- 3 8 ×  $\varnothing 1.2 \text{ mm} / 0.05 \text{ in.}$  holes
- 4 1 hole  $\varnothing 2.9 \text{ mm} \pm 0.05$  /  $0.11 \text{ in.} \pm 0.002$ , 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  $\varnothing 2.4 \text{ mm} / 0.09 \text{ in.}$  for clipping in adapter ZBZ 01•

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

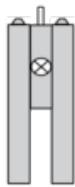
**Electrical Composition Corresponding to Code M3**

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**Electrical Composition Corresponding to Code M4**

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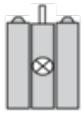
**Electrical Composition Corresponding to Codes M6 and P2**

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

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### Legend

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Single contact



Double contact



Light block



Possible location



## Sequence of Contacts Fitted to 2-position Selector Switch Body

## Position 315°



<b>Push</b>	Position	Top			
		Bottom			
	Location		Left		
	State		0		
<b>Contacts</b>	N/O		open		
	N/C		closed		

## Position 45°



<b>Push</b>	Position	Top			
		Bottom			
	Location		Left		
	State		1		
<b>Contacts</b>	N/O		closed		
	N/C		open		