

# Product datasheet

## Characteristics

# ZB4BL4

## red projecting pushbutton head Ø22 spring return unmarked



### Main

Range of product	Harmony XB4
Product or component type	Head for non-illuminated push-button
Device short name	ZB4
Bezel material	Chromium plated metal
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	Red projecting, unmarked

### Complementary

CAD overall width	29 mm
CAD overall height	29 mm
CAD overall depth	33 mm
Mechanical durability	10000000 cycles
Electrical composition code	C1 for <9 contacts using single blocks in front mounting C2 for <9 contacts using single and double blocks in front mounting C11 for <3 contacts using single blocks in front mounting C15 for <1 contacts using single 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
Overvoltage category	Class I 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	IK06 conforming to IEC 50102
Standards	JIS C8201-5-1 UL 508 EN/IEC 60947-1 EN/IEC 60947-5-1 CSA C22.2 No 14 EN/IEC 60947-5-5 EN/IEC 60947-5-4 JIS C8201-1
Product certifications	RINA LROS (Lloyds register of shipping) GL UL listed DNV CSA BV
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

### 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) <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

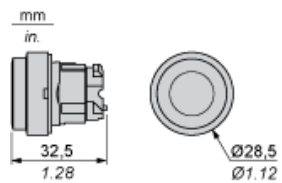
Warranty	18 months
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# Product datasheet

## Dimensions Drawings

# ZB4BL4

### Dimensions

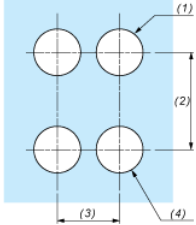
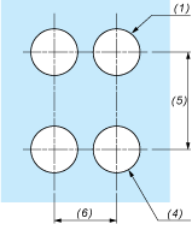


# Product datasheet

## Mounting and Clearance

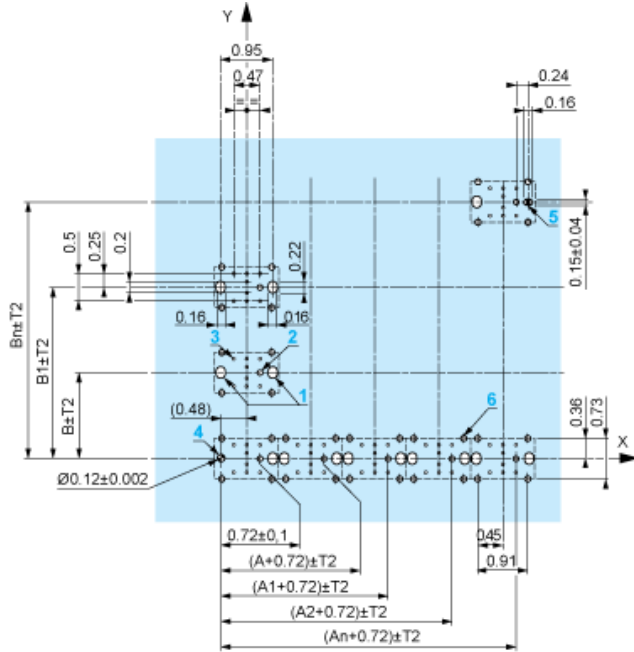
# ZB4BL4

### 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</p> <p>(2) 40 mm min. / 1.57 in. min.</p> <p>(3) 30 mm min. / 1.18 in. min.</p> <p>(4) <math>\text{Ø } 22.5 \text{ mm} / 0.89 \text{ in. recommended } (\text{Ø } 22.3 \text{ mm }_0^{+0.4} / 0.88 \text{ in. }_0^{+0.016})</math></p> <p>(5) 45 mm min. / 1.78 in. min.</p> <p>(6) 32 mm min. / 1.26 in. min.</p>	



Dimensions in in.



A: 1.18 in. min.  
 B: 1.57 in. min.

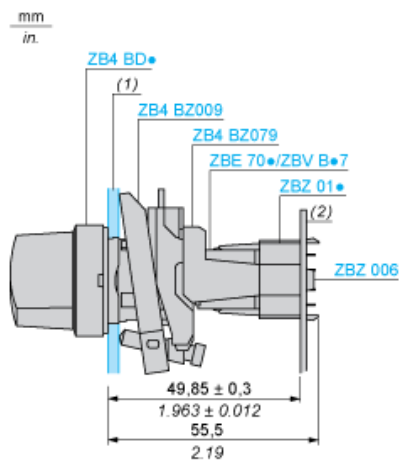
### General Tolerances of the Panel and Printed Circuit Board

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 ± 0.1 / 0.88 in. ± 0.004
- Orientation of body/fixing collar ZB4 BZ009: ± 2°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•.

# Product datasheet

## Technical Description

# ZB4BL4

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### Electrical Composition Corresponding to Code C1

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# Product datasheet

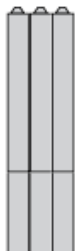
## Technical Description

# ZB4BL4

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### Electrical Composition Corresponding to Code C2

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# Product datasheet

## Technical Description

# ZB4BL4

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

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# Product datasheet

## Technical Description

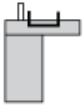
# ZB4BL4

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### Electrical Composition Corresponding to Code C15

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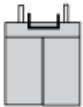
1 N/O



1 N/C



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



# Product datasheet

## Technical Description

# ZB4BL4

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## Legend

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Single contact



Double contact



Light block



Possible location





# SCATTERGOOD & JOHNSON LTD

ELECTRICAL ENGINEERING & FLUID CONTROL DISTRIBUTORS

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