



### Main

Range of product	Harmony XB4
Product or component type	Head for non-illuminated push-button
Device short name	ZB4
Product compatibility	Not compatible with legend holder
Bezel material	Chromium plated metal
Mounting diameter	0.87 in (22 mm)
Sale per indivisible quantity	1
Head type	Standard
Shape of signaling unit head	Round
Type of operator	Spring return
Operator profile	Black projecting unmarked
Operator additional information	Clear boot

### Complementary

CAD overall width	1.18 in (30 mm)
CAD overall height	1.18 in (30 mm)
CAD overall depth	1.38 in (35 mm)
Mechanical durability	10000000 cycles
Electrical composition code	C15 1 contacts using single blocks in front mounting C15 1 contacts using single blocks in front mounting C11 for 3 contacts using single blocks in front mounting C1 for 9 contacts using single blocks in front mounting C2 for 9 contacts using single and double blocks in front mounting

### Environment

protective treatment	TH
ambient air temperature for storage	-40...158 °F (-40...70 °C)
ambient air temperature for operation	-40...158 °F (-40...70 °C)
overvoltage category	Class I conforming to IEC 60536
IP degree of protection	IP67 IP66 conforming to IEC 60529
NEMA degree of protection	NEMA 13 NEMA 4X
IK degree of protection	IK06 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
product certifications	BV CSA DNV GL LROS (Lloyds register of shipping) RINA UL listed
vibration resistance	5 gn (f = 2...500 Hz) conforming to IEC 60068-2-6
shock resistance	30 gn (duration = 18 ms) half sine wave acceleration conforming to IEC 60068-2-27 50 gn (duration = 11 ms) half sine wave acceleration conforming to IEC 60068-2-27

### Offer Sustainability

WARNING: This product can expose you to chemicals including:      WARNING: This product can expose you to chemicals including:

Nickel compounds, which is known to the State of California to cause cancer, and      Nickel compounds, which is known to the State of California to cause cancer, and

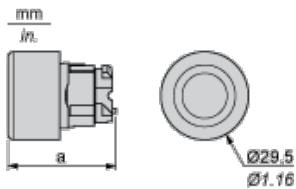
Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm.      Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm.

For more information go to [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov)      For more information go to [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov)

### Contractual warranty

Warranty period      18 months

### Dimensions



	a in mm	a in in.
ZB4BP••	36.5	1.44
ZB4BP•S	33	1.30
ZB4BP•83	32	1.26
ZB4BP•	35	1.38

### 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) Ø 22.5 mm / 0.89 in. recommended (Ø 22.3 mm <math>_{0}^{+0.4}</math> / 0.88 in. <math>_{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>	

### 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

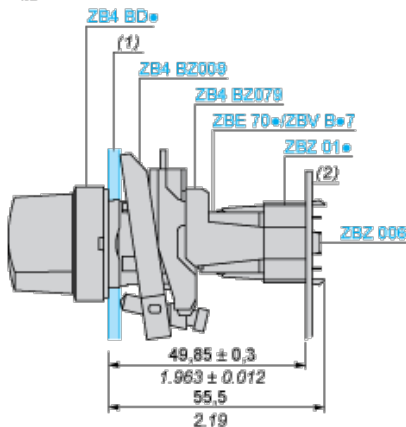
The cumulative tolerance must not exceed 0.3 mm / 0.012 in:  $T1 + T2 = 0.3 \text{ mm max.}$

### 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**.

$\frac{\text{mm}}{\text{in.}}$



(1) Panel

(2) Printed circuit board

### Mounting of Adapter (Socket) ZBZ 01\*

- ┆ 1 2 elongated holes for ZBZ 006 screw access
- ┆ 2 1 hole  $\text{Ø } 2.4 \text{ mm } \pm 0.05$  / 0.09 in.  $\pm 0.002$  for centring adapter ZBZ 01\*
- ┆ 3 8  $\times \text{Ø } 1.2 \text{ mm}$  / 0.05 in. holes
- ┆ 4 1 hole  $\text{Ø } 2.9 \text{ mm } \pm 0.05$  / 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  $\text{Ø } 2.4 \text{ mm}$  / 0.09 in. for clipping in adapter ZBZ 01\*

### Electrical Composition Corresponding to Code C1



### Electrical Composition Corresponding to Code C2



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



### Electrical Composition Corresponding to Code C15

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



## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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