

## Main

|                                 |                                      |
|---------------------------------|--------------------------------------|
| Range of product                | Harmony XB4                          |
| Product or component type       | Head for non-illuminated push-button |
| Device short name               | ZB4                                  |
| Product compatibility           | 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                | Blue flush unmarked                  |
| Operator additional information | Coloured boot                        |

## Complementary

|                             |   |
|-----------------------------|---|
| CAD overall width           | 1.18 in (30 mm)   |
| CAD overall height          | 1.18 in (30 mm)   |
| CAD overall depth           | 1.3 in (33 mm)  |
| Mechanical durability       | 10000000 cycles   |
| Electrical composition code | C15 1 contacts using single blocks in front mounting<br>C15 1 contacts using single blocks in front mounting<br>C11 for 3 contacts using single blocks in front mounting<br>C1 for 9 contacts using single blocks in front mounting<br>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<br>IP66 conforming to IEC 60529<br>IP69K<br>IP69  |
| NEMA degree of protection             | NEMA 13<br>NEMA 4X   |
| IK degree of protection               | IK06 conforming to IEC 50102   |
| standards                             | EN/IEC 60947-1<br>EN/IEC 60947-5-1<br>EN/IEC 60947-5-4<br>EN/IEC 60947-5-5<br>JIS C 4520<br>UL 508<br>CSA C22.2 No 14  |
| product certifications                | BV<br>CSA<br>DNV<br>GL<br>LROS (Lloyds register of shipping)<br>RINA<br>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<br>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:

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

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

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

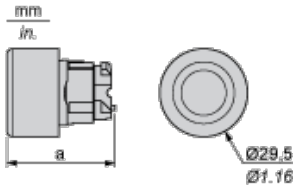
For more information go to [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov)

## 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) <math>\varnothing</math> 22.5 mm / 0.89 in. recommended (<math>\varnothing</math> 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)**

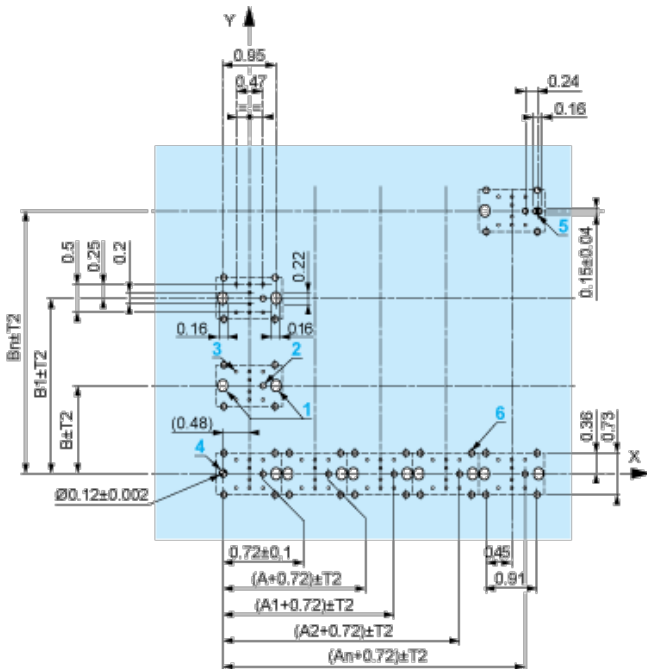
Dimensions in mm



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

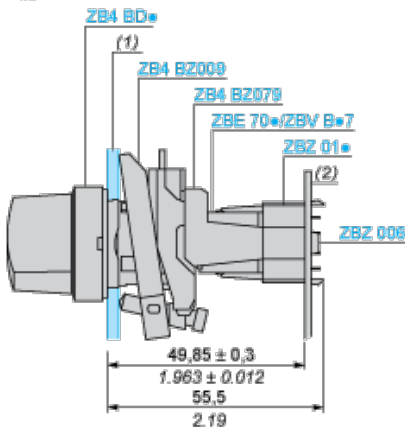
The cumulative tolerance must not exceed 0.3 mm / 0.012 in:  $T1 + T2 = 0.3 \text{ mm max.}$

### 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  $\varnothing$  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•

### 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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