



### Main

|                               |                              |
|-------------------------------|------------------------------|
| Range of product              | Harmony XB4                  |
| Product or component type     | Head for key selector switch |
| Device short name             | ZB4                          |
| Bezel material                | Chromium plated metal        |
| Mounting diameter             | 22 mm                        |
| Head type                     | Standard                     |
| Sale per indivisible quantity | 1                            |
| Shape of signaling unit head  | Round                        |
| Operator profile              | Black key switch             |
| Type of operator              | Stay put                     |
| Operator position information | 2 positions 90°              |
| Type of keylock               | Ronis 421E                   |
| Key withdrawal position       | Left                         |

### Complementary

|                                    |   |
|------------------------------------|---|
| CAD overall width                  | 29 mm   |
| CAD overall height                 | 29 mm   |
| CAD overall depth                  | 72 mm   |
| Net weight                         | 0.098 kg  |
| Resistance to high pressure washer | 7000000 Pa at 55 °C, distance : 0.1 m   |
| Mechanical durability              | 1000000 cycles  |
| Electrical composition code        | C3 for <6 contacts using single blocks in front mounting<br>C4 for <6 contacts using single and double blocks in front mounting<br>C5 for <5 contacts using single blocks in front mounting<br>C6 for <5 contacts using single and double blocks in front mounting<br>C7 for <4 contacts using single blocks in front mounting<br>C8 for <4 contacts using single and double blocks in front mounting<br>C11 for <3 contacts using single blocks in front mounting<br>C15 for <1 contacts using single blocks in front mounting |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                     |               |
|---------------------|---------------|
| 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<br>IP67<br>IP69<br>IP69K  |
| NEMA degree of protection             | NEMA 13<br>NEMA 4X   |
| Standards                             | EN/IEC 60947-1<br>GB 14048.5<br>EN/IEC 60947-5-4<br>EN/IEC 60947-5-5<br>EN/IEC 60947-5-1<br>CSA C22.2 No 14<br>UL 508  |
| Product certifications                | DNV<br>LROS (Lloyds register of shipping)<br>CSA<br>BV<br>UL listed<br>RINA<br>GL  |
| 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<br>50 gn (duration = 11 ms) for half sine wave acceleration conforming to IEC 60068-2-27 |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Weight             | 104 g   |
| Package 1 Height             | 8.6 cm  |
| Package 1 width              | 5.2 cm  |
| Package 1 Length             | 3.3 cm  |
| Unit Type of Package 2       | BB1     |
| Number of Units in Package 2 | 5       |
| Package 2 Weight             | 522 g   |
| Package 2 Height             | 8.6 cm  |
| Package 2 width              | 26.5 cm |
| Package 2 Length             | 3.3 cm  |

## Offer Sustainability

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

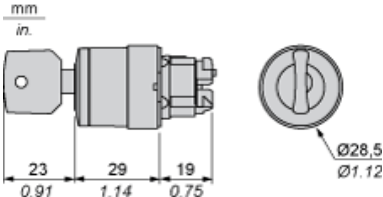
## Contractual warranty

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|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

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Dimensions

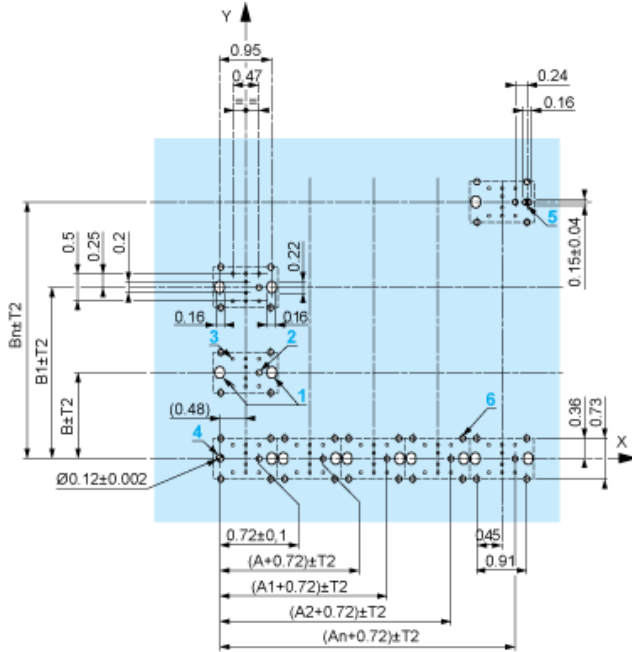


Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)

| 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<br/>                 (2) 40 mm min. / 1.57 in. min.<br/>                 (3) 30 mm min. / 1.18 in. min.<br/>                 (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><br/>                 (5) 45 mm min. / 1.78 in. min.<br/>                 (6) 32 mm min. / 1.26 in. min.</p> |  |



Dimensions in in.



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

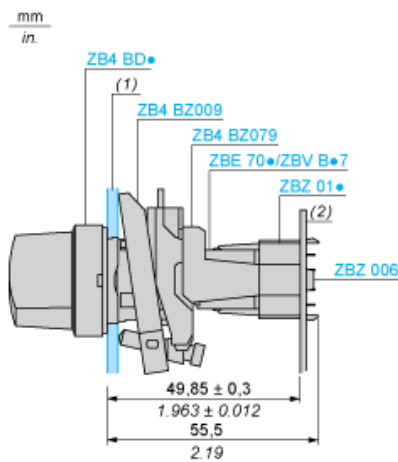
### General Tolerances of the Panel and Printed Circuit Board

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

### 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.



(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  $\times \varnothing 1.2 \text{ mm} / 0.05 \text{ in.}$  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 An + 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•.

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Electrical Composition Corresponding to Code C3

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Electrical Composition Corresponding to Code C4

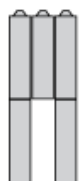
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Electrical Composition Corresponding to Code C5

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Electrical Composition Corresponding to Code C6

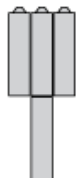
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Electrical Composition Corresponding to Code C7

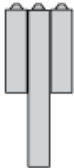
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Electrical Composition Corresponding to Code C8

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

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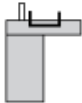


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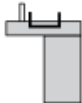
Electrical Composition Corresponding to Code C15

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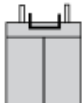
1 N/O



1 N/C



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



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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°



|          |          |        |   |   |   |
|----------|----------|--------|---|---|---|
| Push     | Position | Top    |  |   |   |
|          |          | Bottom |  |  |  |
|          | Location |        | Left  | Centre  | Right   |
|          | State    |        | 0   | 0   | 0   |
| Contacts | N/O      |        | open  | open  | open  |
|          | N/C      |        | closed  | closed  | closed  |

Position 45°



|          |          |        |   |        |        |
|----------|----------|--------|---|--------|--------|
| Push     | Position | Top    |   |        |        |
|          |          | Bottom |  |        |        |
|          | Location |        | Left  | Centre | Right  |
|          | State    |        | 1   | 1      | 1      |
| Contacts | N/O      |        | closed  | closed | closed |
|          | N/C      |        | open  | open   | open   |