

## ZB4BD8

Selector switch head, Harmony XB4, metal, black, 22mm, 3 positions, spring return from right to center



### Main

|                               |                               |
|-------------------------------|-------------------------------|
| Range of product              | Harmony XB4                   |
| Product or component type     | Head for 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                         |
| Type of operator              | Right to centre spring return |
| Operator profile              | Black standard handle         |
| Operator position information | 3 positions +/- 45°           |

### Complementary

|                                    |  |
|------------------------------------|--|
| CAD overall width                  | 29 mm  |
| CAD overall height                 | 29 mm  |
| CAD overall depth                  | 44 mm  |
| Product weight                     | 0.04 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 |
| 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               | IP67 conforming to IEC 60529<br>IP69<br>IP69K   |
| NEMA degree of protection             | NEMA 13<br>NEMA 4X  |
| IK degree of protection               | IK06 conforming to IEC 50102  |
| Standards                             | EN/IEC 60947-1<br>UL 508<br>EN/IEC 60947-5-5<br>EN/IEC 60947-5-4<br>EN/IEC 60947-5-1<br>JIS C8201-5-1<br>CSA C22.2 No 14<br>JIS C8201-1 |

|                        |  |
|------------------------|--|
| Product certifications | CSA<br>DNV<br>LROS (Lloyds register of shipping)<br>UL listed<br>GL<br>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<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 Height             | 3.5 cm   |
| Package 1 Width              | 5.4 cm   |
| Package 1 Length             | 5.6 cm   |
| Package 1 Weight             | 44 g     |
| Unit Type of Package 2       | BB1      |
| Number of Units in Package 2 | 5        |
| Package 2 Height             | 3.3 cm   |
| Package 2 Width              | 26 cm    |
| Package 2 Length             | 4.8 cm   |
| Package 2 Weight             | 222 g    |
| Unit Type of Package 3       | S02      |
| Number of Units in Package 3 | 100      |
| Package 3 Height             | 15 cm    |
| Package 3 Width              | 30 cm    |
| Package 3 Length             | 40 cm    |
| Package 3 Weight             | 4.742 kg |

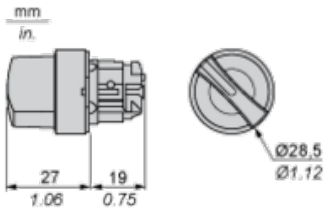
## Offer Sustainability

|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| REACH Regulation           | <a href="#">REACH Declaration</a>   |
| REACH 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   |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</a>  |
| RoHS exemption information | <a href="#">Yes</a>   |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>   |
| Circularity Profile        | <a href="#">End Of Life Information</a>   |
| California proposition 65  | WARNING: This product can expose you to chemicals including: 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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |

## Contractual warranty

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

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>\varnothing 22.5</math> mm / 0.89 in. recommended (<math>\varnothing 22.3</math> mm <math>_0^{+0.4}</math> / 0.88 in. <math>_0^{+0.016}</math>)<br/>                 (5) 45 mm min. / 1.78 in. min.<br/>                 (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.



(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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### Legend

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Single contact

Double contact

Light block

Possible location



## Sequence of Contacts Fitted to 3-position Selector Switch Body

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### Position 315°



|          |          |      |        |        |      |
|----------|----------|------|--------|--------|------|
| Push     | Position | Top  |        |        |      |
| Bottom   |          |      |        |        |      |
| Location |          | Left | Centre | Right  |      |
| State    |          | 1    | 1      | 0      |      |
| Contacts | N/O      |      | closed | closed | open |
| N/C      |          | open | open   | closed |      |



### Position 0°



|          |          |        |        |        |      |
|----------|----------|--------|--------|--------|------|
| 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    |          | 0      | 1      | 1      |        |
| Contacts | N/O      |        | open   | closed | closed |
| N/C      |          | closed | open   | open   |        |