

## ZB4BD2

Harmony, 22mm Push Button, selector switch operating head, 2 position, maintained, black, unmarked



### 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             | 0.87 in (22 mm)          |
| Head type                     | Standard                 |
| Sale per indivisible quantity | 1                        |
| Shape of signaling unit head  | Round                    |
| Type of operator              | Stay put                 |
| Operator profile              | Black standard handle    |
| Operator position information | 2 positions 90°          |

### Complementary

|                                    |   |
|------------------------------------|---|
| CAD overall width                  | 1.14 in (29 mm)   |
| CAD overall height                 | 1.14 in (29 mm)   |
| CAD overall depth                  | 1.73 in (44 mm)   |
| Net Weight                         | 0.09 lb(US) (0.04 kg)   |
| Resistance to high pressure washer | 1015.26 psi (7000000 Pa) 131 °F (55 °C) 0.1 m   |
| Mechanical durability              | 1000000 cycles  |
| Electrical composition code        | C3 6 single front mounting<br>C4 6 single and double front mounting<br>C5 5 single front mounting<br>C6 5 single and double front mounting<br>C7 4 single front mounting<br>C8 4 single and double front mounting<br>C11 3 single front mounting<br>C15 1 single front mounting |
| Device presentation                | Basic element   |

### 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)  |
| Overtoltage category                  | Class I IEC 60536   |
| IP degree of protection               | IP67 IEC 60529<br>IP69<br>IP69K   |
| NEMA degree of protection             | NEMA 13<br>NEMA 4X  |
| IK degree of protection               | IK06 IEC 50102  |
| Standards                             | JIS C8201-5-1<br>EN/IEC 60947-5-1<br>EN/IEC 60947-5-4<br>EN/IEC 60947-1<br>CSA C22.2 No 14<br>EN/IEC 60947-5-5<br>UL 508<br>JIS C8201-1 |

|                        |  |
|------------------------|--|
| Product Certifications | BV<br>LROS (Lloyds register of shipping)<br>DNV<br>UL Listed<br>CSA<br>GL  |
| Vibration resistance   | 5 gn 2...500 Hz)IEC 60068-2-6  |
| Shock resistance       | 30 gn 18 ms) half sine wave acceleration IEC 60068-2-27<br>50 gn 11 ms) half sine wave acceleration IEC 60068-2-27 |

## Ordering and shipping details

|                       |                                   |
|-----------------------|-----------------------------------|
| Category              | 22468-PUSHBUTTONS,22MM(METAL) NEW |
| Discount Schedule     | CS2                               |
| GTIN                  | 3389110888935                     |
| Nbr. of units in pkg. | 1                                 |
| Package weight(Lbs)   | 1.55 oz (44.0 g)                  |
| Returnability         | Yes                               |
| Country of origin     | FR                                |

## Packing Units

|                              |                            |
|------------------------------|----------------------------|
| Unit Type of Package 1       | PCE                        |
| Package 1 Height             | 1.38 in (3.5 cm)           |
| Package 1 width              | 2.13 in (5.4 cm)           |
| Package 1 Length             | 2.13 in (5.4 cm)           |
| Unit Type of Package 2       | P06                        |
| Number of Units in Package 2 | 2000                       |
| Package 2 Weight             | 226.20 lb(US) (102.604 kg) |
| Package 2 Height             | 30.31 in (77 cm)           |
| Package 2 width              | 23.62 in (60 cm)           |
| Package 2 Length             | 31.50 in (80 cm)           |
| Unit Type of Package 3       | S03                        |
| Number of Units in Package 3 | 250                        |
| Package 3 Weight             | 25.81 lb(US) (11.706 kg)   |
| Package 3 Height             | 11.81 in (30 cm)           |
| Package 3 width              | 11.81 in (30 cm)           |
| Package 3 Length             | 15.75 in (40 cm)           |

## Offer Sustainability

|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| 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> |
| 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   |
| 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>   |

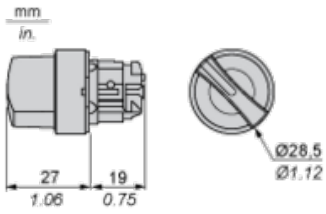
## Contractual warranty

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

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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.

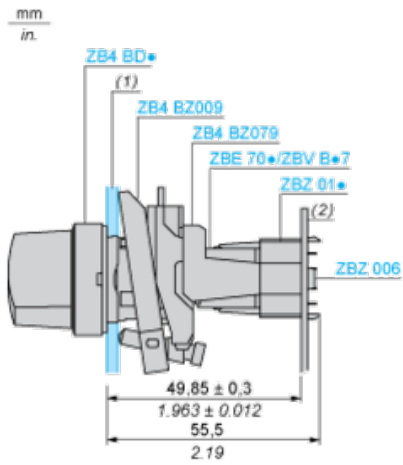
### General Tolerances of the Panel and Printed Circuit Board

The cumulative tolerance must not exceed 0.3 mm / 0.012 in:  $T_1 + T_2 = 0.3 \text{ mm max.}$

### 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 ×  $\varnothing 1.2 \text{ mm} / 0.05 \text{ in.}$  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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## 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

## 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   |        |