



## Main

|                               |                                      |
|-------------------------------|--------------------------------------|
| Range of product              | Harmony XB4                          |
| Product or component type     | Head for illuminated selector switch |
| Product compatibility         | Integral LED                         |
| Device short name             | ZB4                                  |
| Bezel material                | Chromium plated metal                |
| Head type                     | Standard                             |
| Mounting diameter             | 22 mm                                |
| Sale per indivisible quantity | 1                                    |
| Shape of signaling unit head  | Round                                |
| Type of operator              | Right to centre spring return        |
| Operator profile              | Orange standard handle               |
| Operator position information | 3 positions +/- 45°                  |

## Complementary

|                                    |  |
|------------------------------------|--|
| CAD overall width                  | 29 mm  |
| CAD overall height                 | 29 mm  |
| CAD overall depth                  | 43 mm  |
| Net weight                         | 0.036 kg   |
| Resistance to high pressure washer | 7000000 Pa at 55 °C, distance : 0.1 m  |
| Mechanical durability              | 500000 cycles  |
| Electrical composition code        | M3 for <4 contacts using single blocks in front mounting with integral LED<br>M6 for <2 contacts using single blocks in front mounting with integral LED and transformer<br>M10 for <2 contacts using single blocks in front mounting with integral LED<br>M4 for <4 contacts using single and double blocks in front mounting with integral LED |
| 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  |
| IK degree of protection               | IK06 conforming to IEC 50102  |
| Standards                             | EN/IEC 60947-5-4<br>EN/IEC 60947-5-5<br>EN/IEC 60947-1<br>JIS C8201-5-1<br>UL 508<br>EN/IEC 60947-5-1<br>CSA C22.2 No 14<br>JIS C8201-1 |

|                        |  |
|------------------------|--|
| Product certifications | DNV<br>BV<br>UL listed<br>CSA<br>GL<br>RINA<br>LROS (Lloyds register of shipping)  |
| 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             | 41 g      |
| Package 1 Height             | 3.3 cm    |
| Package 1 width              | 4.8 cm    |
| Package 1 Length             | 5.2 cm    |
| Unit Type of Package 2       | BB1       |
| Number of Units in Package 2 | 5         |
| Package 2 Weight             | 208 g     |
| Package 2 Height             | 4.8 cm    |
| Package 2 width              | 26.5 cm   |
| Package 2 Length             | 3.3 cm    |
| Unit Type of Package 3       | S03       |
| Number of Units in Package 3 | 250       |
| Package 3 Weight             | 11.059 kg |
| Package 3 Height             | 30 cm     |
| Package 3 width              | 30 cm     |
| Package 3 Length             | 40 cm     |

## 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  |
| 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 |
|----------|-----------|

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 \text{ mm} / 0.89 \text{ in. recommended } (\varnothing 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> |   |

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:  $T1 + T2 = 0.3$  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 M3

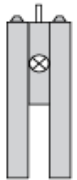
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Electrical Composition Corresponding to Code M4

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Electrical Composition Corresponding to Codes M6 and P2

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Electrical Composition Corresponding to Codes M5, M10, MF1, MR1 and MF2

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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






#### Position 315°



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

#### Position 0°




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



Position 45°



|          |                          |                          |                          |   |  |
|----------|--------------------------|--------------------------|--------------------------|---|--|
| Push     | Position                 | Top                      | <input type="checkbox"/> |  |  |
| Bottom   | <input type="checkbox"/> | <input type="checkbox"/> |                          |   |  |
| Location |                          | Left                     | Right                    |   |  |
| State    |                          | 0                        | 1                        |   |  |
| Contacts | N/O                      |                          | open                     | closed  |  |
| N/C      |                          | closed                   | open                     |   |  |