## Product datasheet

Specifications


# Head for illuminated selector switch, Harmony XB4, chromium metal, red handle, 22mm, universal LED, 3 positions, 

Local distributor code: 237119133 ZB4BK1543

Important message : A change in appearance may be noted on the product but does not affect its use in terms of function and safety. This makes it compatible with our Universal LED blocks EAN Code : 3389110890952

washer

| Mechanical durability | 500000 cycles |
| :--- | :--- |
| Electrical composition code | M3 for <4 contacts using single blocks in front mounting with integral LED |
|  | M6 for <2 contacts using single blocks in front mounting with integral LED and transformer |
|  | M10 for <2 contacts using single blocks in front mounting with integral LED |
|  | M4 for <4 contacts using single and double blocks in front mounting with integral LED |

Device presentation

## Environment

Protective treatment

| Ambient air temperature for <br> storage | $-40 \ldots 70^{\circ} \mathrm{C}$ |
| :--- | :--- |

Ambient air temperature for $\quad-40 \ldots 70^{\circ} \mathrm{C}$ operation

| Overvoltage category | Class I conforming to IEC 60536 |
| :--- | :--- |
| IP degree of protection | IP66 conforming to IEC 60529 |
|  | IP67 |
|  | IP69 |
|  | IP69K |

\(\left.\begin{array}{ll}\hline NEMA degree of protection \& NEMA 13 <br>

\& NEMA 4X\end{array}\right]\)| IK degree of protection | IK04 conforming to IEC 50102 |
| :--- | :--- |
| Standards | EN/IEC 60947-5-4 |
|  | EN/IEC 60947-1 |
|  | EN/IEC 60947-5-5 |
|  | EN/IEC 60947-5-1 |
|  | UL 508 |
|  | JIS C8201-5-1 |
|  | CSA C22.2 No 14 |
|  | JIS C8201-1 |

| Product certifications | DNV |
| :--- | :--- |
|  | GL |
|  | CSA |
|  | LROS (Lloyds register of shipping) |
|  | UL listed |
| Vibration resistance | $5 \mathrm{gn}(\mathrm{f}=2 \ldots 500 \mathrm{~Hz})$ conforming to IEC 60068-2-6 |
| Shock resistance | 30 gn (duration $=18 \mathrm{~ms})$ for half sine wave acceleration conforming to IEC 60068-2-27 |
|  | 50 gn (duration $=11 \mathrm{~ms})$ 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 | 3.3 cm |
| Package 1 Width | 4.8 cm |
| Package 1 Length | 5.2 cm |
| Package 1 Weight | 42 g |
| Unit Type of Package 2 | 503 |
| Number of Units in Package 2 | 250 |
| Package 2 Height | 30 cm |
| Package 2 Width | 30 cm |
| Package 2 Length | 40 cm |
| Package 2 Weight | 10.981 kg |

Offer Sustainability

| Sustainable offer status | Green Premium product |
| :--- | :--- |
| REACh Regulation | REACh Declaration |
| REACh free of SVHC | Yes |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) |
| EU RoHS Declaration |  |

Circularity Profile

## Contractual warranty

## Warranty

Dimensions Drawings

Dimensions


Mounting and Clearance

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 |
| (1) Diameter on finished panel or support |
| (2) 40 mm min. / 1.57 in min. |
| (3) 30 mm min. / 1.18 in . min. |
| (4) $\varnothing 22.5 \mathrm{~mm} / 0.89 \mathrm{in}$ recommended ( $\varnothing 22.3 \mathrm{~mm}{ }_{0}{ }^{+0.4} / 0.88 \mathrm{in} .0^{+0.016}$ ) |
| (5) 45 mm min. / 1.78 in . min. |
| (6) 32 mm min / 1.26 in . min. |

Mounting and Clearance

Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection
Panel Cut-outs (Viewed from Installer's Side)


A: 30 mm min. / $1.18 \mathrm{in} . \mathrm{min}$.
B: 40 mm min. / $1.57 \mathrm{in} . \mathrm{min}$
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 $0.3 \mathrm{~mm} / 0.012 \mathrm{in}$ : $\mathrm{T} 1+\mathrm{T} 2=0.3 \mathrm{~mm}$ max.

## Installation Precautions

- Minimum thickness of circuit board: $1.6 \mathrm{~mm} / 0.06 \mathrm{in}$.
- Cut-out diameter: $22.4 \mathrm{~mm} \pm 0.1$ / $0.88 \mathrm{in} . \pm 0.004$
- Orientation of body/fixing collar ZB4 BZ009: $\pm 2^{\circ} 30^{\prime}$ (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 $90 \mathrm{~mm} / 3.54 \mathrm{in}$. horizontally $(\mathrm{X})$, and $120 \mathrm{~mm} / 4.72 \mathrm{in}$. vertically $(\mathrm{Y})$.
- with each selector switch head (ZB4 BD•, ZB4 BJ•, ZB4 BG•).

The fixing centers marked $\mathbf{a}$ and $\mathbf{b}$ are diagonally opposed and must align with those marked 4 and 5.
$\frac{\mathrm{mm}}{\mathrm{in} .}$

(1) Panel
(2) Printed circuit board

## Mounting of Adapter (Socket) ZBZ 01•

- 12 elongated holes for ZBZ 006 screw access
- 21 hole $\varnothing 2.4 \mathrm{~mm} \pm 0.05 / 0.09 \mathrm{in} . \pm 0.002$ for centring adapter ZBZ 01•
- $38 \times \varnothing 1.2 \mathrm{~mm} / 0.05 \mathrm{in}$. holes
- 41 hole Ø $2.9 \mathrm{~mm} \pm 0.05 / 0.11 \mathrm{in}$. $\pm 0.002$, for aligning the printed circuit board (with cut-out marked a)
- 51 elongated hole for aligning the printed circuit board (with cut-out marked b)
- 64 holes Ø 2.4 mm / 0.09 in. for clipping in adapter ZBZ 01 •





Single contact


Double contact


Light block


Possible location

Position $315^{\circ}$


| Push | Position | Top |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Bottom |  | $\theta$ | $\triangle$ |
|  | Location |  | Left |  | Right |
|  | State |  | 1 |  | 0 |
| Contacts | N/O |  | closed |  | open |
|  | N/C |  | open |  | closed |

## Position $0^{\circ}$



| Push | Position | Top |  | $\square$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Bottom | $\triangle$ | $\theta$ | $\triangle$ |
|  | Location |  | Left |  | Right |
|  | State |  | 0 |  | 0 |
| Contacts | N/O |  | open |  | open |
|  | N/C |  | closed |  | closed |

## Position $45^{\circ}$



| Push | Position | Top |  | $\square$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Bottom | $\triangle$ | $8$ | $\square$ |
|  | Location |  | Left |  | Right |
|  | State |  | 0 |  | 1 |
| Contacts | N/O |  | open |  | closed |
|  | N/C |  | closed |  | open |



Recommended replacement(s)

