Product datasheet

Specification





Harmony XB4, Push button head, metal, flush, green, 22mm, spring return, unmarked

ZB4BA3

Main

| Range Of Product | Harmony XB4 | |
|-------------------------------|--------------------------------------|--|
| Product Or Component Type | Head for non-illuminated push-button | |
| Device Short Name | ZB4 | |
| Bezel Material | Chromium plated metal | |
| Mounting Diameter | 22.5 mm | |
| Sale Per Indivisible Quantity | 1 | |
| Head Type | Standard | |
| Shape Of Signaling Unit Head | Round | |
| Type Of Operator | spring return | |
| Operator Profile | Green flush, unmarked | |
| Cap/Operator Or Lens Colour | Green | |

Complementary

| Cad Overall Width | 29 mm | |
|-----------------------------|--|--|
| Cad Overall Height | 29 mm | |
| Cad Overall Depth | 28 mm | |
| Mechanical Durability | 10000000 cycles | |
| Electrical Composition Code | C1 for <9 contacts using single blocks in front mounting C2 for <9 contacts using single and double blocks in front mounting C11 for <3 contacts using single blocks in front mounting C15 for <1 contacts using single blocks in front mounting | |
| Device Presentation | Basic element | |

Environment

| Protective Treatment | тн |
|--|--|
| Ambient Air Temperature For Storage | -4070 °C |
| Ambient Air Temperature For Operation | -4070 °C |
| Overvoltage Category | Class I conforming to IEC 60536 |
| Ip Degree Of Protection | IP66 conforming to IEC 60529 IP67 IP69 IP69K |
| Nema Degree Of Protection | NEMA 13 NEMA 4X |
| Ik Degree Of Protection | IK06 conforming to IEC 50102 |

| Standards | JIS C8201-5-1 UL 508 IEC 60947-5-5 CSA C22.2 No 14 IEC 60947-5-1 IEC 60947-1 IEC 60947-5-4 JIS C8201-1 |
|------------------------|---|
| Product Certifications | CSA DNV BV GL LROS (Lloyds register of shipping) UL listed |
| Vibration Resistance | 5 gn (f= 2500 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 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 | 4.800 cm |
| Package 1 Width | 3.400 cm |
| Package 1 Length | 5.400 cm |
| Package 1 Weight | 28.000 g |
| Unit Type Of Package 2 | BB1 |
| Number Of Units In Package 2 | 5 |
| Package 2 Height | 4.800 cm |
| Package 2 Width | 3.400 cm |
| Package 2 Length | 26.500 cm |
| Package 2 Weight | 140.000 g |
| Unit Type Of Package 3 | S03 |
| Number Of Units In Package 3 | 300 |
| Package 3 Height | 30.000 cm |
| Package 3 Width | 30.000 cm |
| Package 3 Length | 40.000 cm |
| Package 3 Weight | 8.939 kg |

Contractual warranty

Warranty 18 months



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Transparency RoHS/REACh

Well-being performance

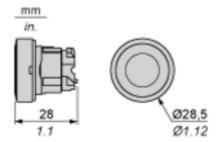
| ⊘ | Reach Free Of Svhc | |
|----------|----------------------------|-----|
| Ø | Toxic Heavy Metal Free | |
| ⊘ | Mercury Free | |
| ⊘ | Rohs Exemption Information | Yes |

Certifications & Standards

| Reach Regulation | REACh Declaration |
|--------------------------|--|
| Eu Rohs Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |
| China Rohs Regulation | China RoHS declaration |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | End of Life Information |

Dimensions Drawings

Dimensions



Mounting and Clearance

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

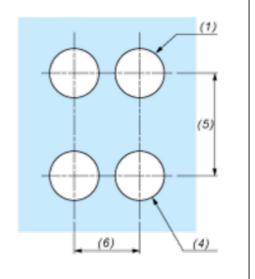
Connectors or on Printed Circuit Board

(1)

(2)

Connection by Screw Clamp Terminals or Plug-in

Connection by Faston Connectors



(1) Diameter on finished panel or support

(3)

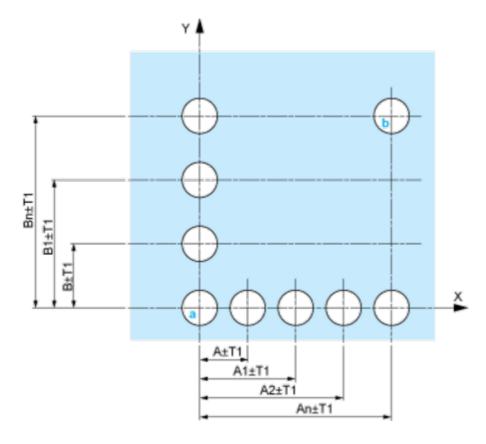
- (2) 40 mm min. / 1.57 in. min.
- (3) 30 mm min. / 1.18 in. min.
- (4) Ø 22.5 mm / 0.89 in. recommended (Ø 22.3 mm $_0^{+0.4}$ / 0.88 in. $_0^{+0.016}$)

(4)

- (5) 45 mm min. / 1.78 in. min.
- (6) 32 mm min. / 1.26 in. min.

Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

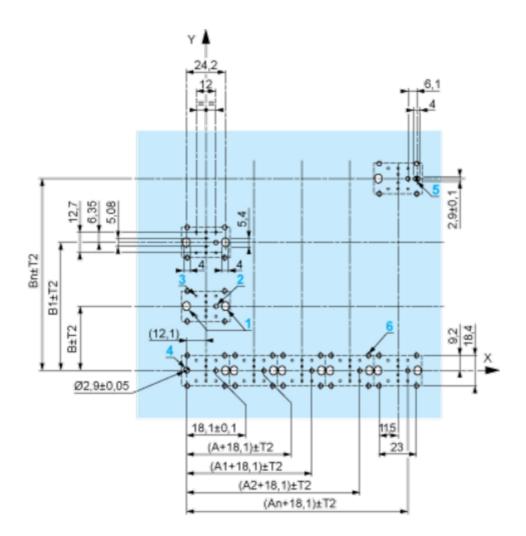
Panel Cut-outs (Viewed from Installer's Side)



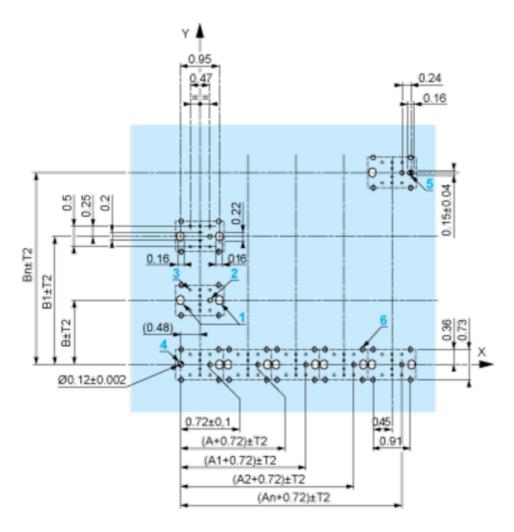
A: 30 mm min. / 1.18 in. min. **B:** 40 mm min. / 1.57 in. min.

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

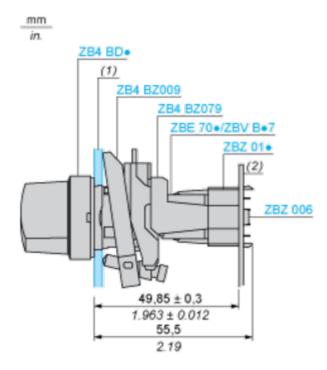
The cumulative tolerance must not exceed 0.3 mm / 0.012 in: T1 + T2 = 0.3 mm max.

Installation Precautions

- $_{\bullet}$ Minimum thickness of circuit board: 1.6 mm / 0.06 in.
- Cut-out diameter: 22.4 mm ± 0.1 / 0.88 in. ± 0.004
- Orientation of body/fixing collar ZB4 BZ009: ± 2°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:
 - $_{\circ}\;$ every 90 mm / 3.54 in. horizontally (X), and 120 mm / 4.72 in. vertically (Y).
 - o 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.

19 May 2024



- (1) Panel
- (2) Printed circuit board

Mounting of Adapter (Socket) ZBZ 01•

- 1 2 elongated holes for ZBZ 006 screw access
- 2 1 hole Ø 2.4 mm ± 0.05 / 0.09 in. ± 0.002 for centring adapter ZBZ 01•
- 3 8 × Ø 1.2 mm / 0.05 in. holes
- 4 1 hole Ø 2.9 mm ± 0.05 / 0.11 in. ± 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 Ø 2.4 mm / 0.09 in. for clipping in adapter ZBZ 01•

Dimensions An + 18.1 relate to the \emptyset 2.4 mm \pm 0.05 / 0.09 in. \pm 0.002 holes for centring adapter ZBZ 01•.

Technical Description

Electrical Composition Corresponding to Code C1



Electrical Composition Corresponding to Code C2



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



Electrical Composition Corresponding to Code C15

1 N/O



1 N/C



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



Legend

Single contact



Double contact



Light block



Possible location

