Product datasheet Characteristics

ZB4BJ491



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 | Spring return right to left |
| Operator profile | Black long handle |
| Operator additional information | Padlockable |
| Operator position information | 2 positions 90° |
| Locking position | On the left |
| | |

Complementary

| CAD overall width | 1.14 in (29 mm) | | | |
|------------------------------------|---|--|--|--|
| CAD overall height | 1.5 in (38 mm) | | | |
| CAD overall depth | 1.97 in (50 mm) | | | |
| Product weight | 0.12 lb(US) (0.054 kg) | | | |
| Resistance to high pressure washer | 1015.26 psi (7000000 Pa) at 131 °F (55 °C),distance: 0.1 m | | | |
| Mechanical durability | 1000000 cycles | | | |
| Electrical composition code | C15 1 contacts using single blocks in front mounting C15 1 contacts using single blocks in front mounting C11 for 3 contacts using single blocks in front mounting C7 for 4 contacts using single blocks in front mounting C8 for 4 contacts using single and double blocks in front mounting C4 6 contacts using single and double blocks in front mounting C5 for 5 contacts using single blocks in front mounting C6 for 5 contacts using single blocks in front mounting C6 for 5 contacts using single blocks in front mounting C3 6 contacts using single blocks in front mounting | | | |

Environment

| protective treatment | TH | | | |
|---------------------------------------|---|--|--|--|
| ambient air temperature for storage | -40158 °F (-4070 °C) | | | |
| ambient air temperature for operation | -40158 °F (-4070 °C) | | | |
| overvoltage category | Class I conforming to IEC 60536 | | | |
| IP degree of protection | IP67 conforming to IEC 60529 IP69K IP69 | | | |
| NEMA degree of protection | NEMA 13 NEMA 4X | | | |
| IK degree of protection | IK06 conforming to IEC 50102 | | | |
| standards | EN/IEC 60947-1 EN/IEC 60947-5-1 EN/IEC 60947-5-4 EN/IEC 60947-5-5 JIS C 4520 UL 508 CSA C22.2 No 14 | | | |
| product certifications | BV CSA DNV GL LROS (Lloyds register of shipping) | | | |

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| | RINA UL listed |
|----------------------|--|
| vibration resistance | 5 gn (f = 2500 Hz) conforming to IEC 60068-2-6 |
| shock resistance | 30 gn (duration = 18 ms) half sine wave acceleration conforming to IEC 60068-2-27 50 gn (duration = 11 ms) half sine wave acceleration conforming to IEC 60068-2-27 |

Offer Sustainability

| WARNING: This product can expose you to chemicals including: | WARNING: This product can expose you to chemicals including: |
|--|---|
| Nickel compounds, which is known to the State of California to cause cancer, and | Nickel compounds, which is known to the State of California to cause cancer, and |
| Di-isodecyl phthalate (DIDP), which is known to the Stat | eDi-isodecyl phthalate (DIDP), which is known to the State of California to cause birth |

of California to cause birth defects or other reproductive defects or other reproductive harm.

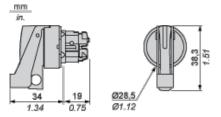
For more information go to www.p65warnings.ca.gov For more information go to www.p65warnings.ca.gov

Contractual warranty

Warranty period

18 months

Dimensions



Shank max.: 6.35 mm / 0.25 in.

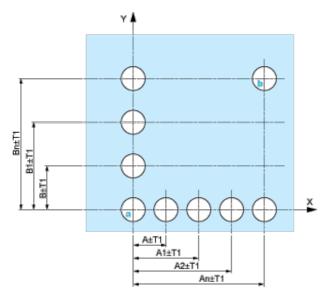
Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)

| Connection by Screw Clamp Termi Connectors or on Printed Circuit Bo | | Connection by Faston Connectors | | | |
|--|------------------------------|---------------------------------|--|--|--|
| | | | | | |
| (1) Diameter on finished panel or sup | port | | | | |
| (2) 40 mm min. / 1.57 in. min. | | | | | |
| (3) 30 mm min. / 1.18 in. min. | 30 mm min. / 1.18 in. min. | | | | |
| Ø 22.5 mm / 0.89 in. recommended (Ø 22.3 mm 0+0.4 / 0.88 in. 0+0.016) | | | | | |
| (5) 45 mm min. / 1.78 in. min. |) 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

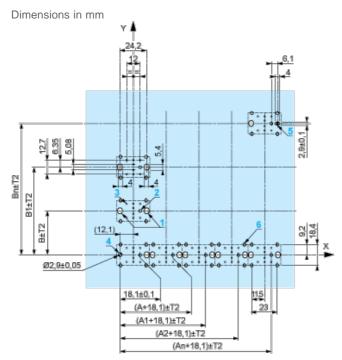
Panel Cut-outs (Viewed from Installer's Side)





- 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)

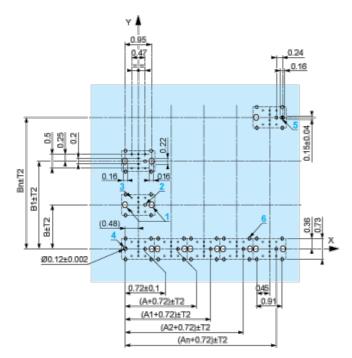


A: 30 mm min.

B: 40 mm min.

Dimensions in in.





A: 1.18 in. min.

B: 1.57 in. min.

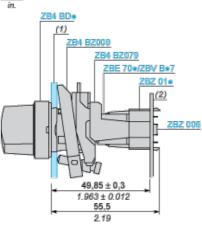
General Tolerances of the Panel and Printed Circuit Board

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 ± 0.1 / 0.88 in. ± 0.004
- 1 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:
 - i every 90 mm / 3.54 in. horizontally (X), and 120 mm / 4.72 in. vertically (Y).
 - i 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

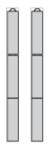
Mounting of Adapter (Socket) ZBZ 01•

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

Electrical Composition Corresponding to Code C3



Electrical Composition Corresponding to Code C4



Electrical Composition Corresponding to Code C5



Electrical Composition Corresponding to Code C6

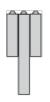


Electrical Composition Corresponding to Code C7



Electrical Composition Corresponding to Code C8





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



Electrical Composition Corresponding to Code C15



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

Sequence of Contacts Fitted to 2-position Selector Switch Body

Position 315°





| Push | Position | Тор | | | |
|----------|----------|--------|------------------|------------------|------------------|
| | | Bottom | \bigtriangleup | \bigtriangleup | \bigtriangleup |
| | Location | | Left | Centre | Right |
| | State | | 0 | 0 | 0 |
| Contacts | N/O | | open | open | open |
| | N/C | | closed | closed | closed |

Position 45°



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

