

# Product data sheet

Specifications



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

ZB4BD2

Product availability: Stock - Normally stocked in distribution facility

## 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             | 0.9 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                  | 1.1 in (29 mm)                                                                                                                                                                                                                                                                  |
| CAD overall height                 | 1.1 in (29 mm)                                                                                                                                                                                                                                                                  |
| CAD overall depth                  | 1.7 in (44 mm)                                                                                                                                                                                                                                                                  |
| Net Weight                         | 0.09 lb(US) (0.04 kg)                                                                                                                                                                                                                                                           |
| Resistance to high pressure washer | 1015.3 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) |

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                           |                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Overvoltage category      | Class I conforming to 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 conforming to IEC 50102                                                                                                |
| Standards                 | JIS C8201-5-1<br>IEC 60947-5-1<br>IEC 60947-5-4<br>IEC 60947-1<br>CSA C22.2 No 14<br>IEC 60947-5-5<br>UL 508<br>JIS C8201-1 |
| Product Certifications    | CSA<br>DNV<br>BV<br>LROS (Lloyds register of shipping)<br>UL Listed                                                         |
| Vibration resistance      | 5 gn (f= 2...500 Hz) conforming to 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          | US10CS222468  |
| Discount Schedule | 0CS2          |
| GTIN              | 3389110888935 |
| Returnability     | Yes           |
| Country of origin | MX            |

## Packing Units

|                              |                      |
|------------------------------|----------------------|
| Unit Type of Package 1       | PCE                  |
| Number of Units in Package 1 | 1                    |
| Package 1 Height             | 1.38 in (3.500 cm)   |
| Package 1 Width              | 2.13 in (5.400 cm)   |
| Package 1 Length             | 2.13 in (5.400 cm)   |
| Package 1 Weight             | 1.552 oz (44.000 g)  |
| Unit Type of Package 2       | BB1                  |
| Number of Units in Package 2 | 5                    |
| Package 2 Height             | 2.05 in (5.200 cm)   |
| Package 2 Width              | 1.34 in (3.400 cm)   |
| Package 2 Length             | 10.43 in (26.500 cm) |
| Package 2 Weight             | 7.901 oz (224.000 g) |
| Unit Type of Package 3       | S03                  |
| Number of Units in Package 3 | 250                  |
| Package 3 Height             | 11.81 in (30.000 cm) |
| Package 3 Width              | 11.81 in (30.000 cm) |

|                  |                           |
|------------------|---------------------------|
| Package 3 Length | 15.75 in (40.000 cm)      |
| Package 3 Weight | 25.807 lb(US) (11.706 kg) |

## Contractual warranty

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

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

|  Environmental footprint |                                               |
|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| Carbon footprint (kg CO2 eq, Total Life cycle)                                                            | 1                                             |
| Environmental Disclosure                                                                                  | <a href="#">Product Environmental Profile</a> |

Use Better

|  Materials and Substances |                                                                                                                                                                                                                                                                                       |
|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Packaging made with recycled cardboard                                                                     | No                                                                                                                                                                                                                                                                                    |
| Packaging without single use plastic                                                                       | No                                                                                                                                                                                                                                                                                    |
| <a href="#">EU RoHS Directive</a>                                                                          | Pro-active compliance (Product out of EU RoHS legal scope)                                                                                                                                                                                                                            |
| REACH Regulation                                                                                           | <a href="#">REACH Declaration</a>                                                                                                                                                                                                                                                     |
| 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> |

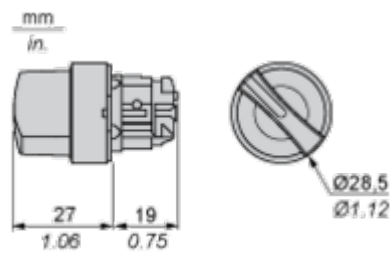
Use Again

|  Repack and remanufacture |                                         |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Circularity Profile                                                                                          | <a href="#">End of Life Information</a> |
| Take-back                                                                                                    | No                                      |

Dimensions Drawings

Dimensions

---



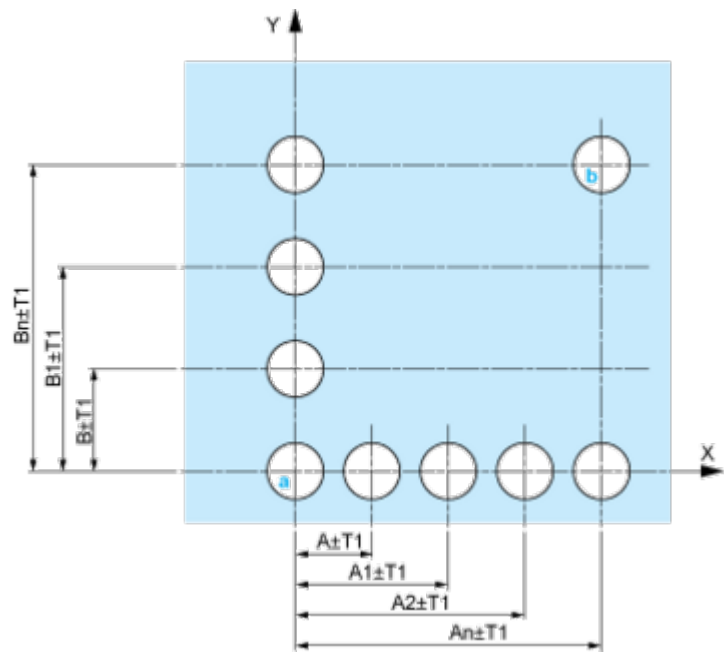
Mounting and Clearance

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                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                            |  |
| <p>(1) Diameter on finished panel or support</p> <p>(2) 40 mm min. / 1.57 in. min.</p> <p>(3) 30 mm min. / 1.18 in. min.</p> <p>(4) Ø 22.5 mm / 0.89 in. recommended (Ø 22.3 mm <math>^{+0.4}_0</math> / 0.88 in. <math>^{+0.016}_0</math>)</p> <p>(5) 45 mm min. / 1.78 in. min.</p> <p>(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)

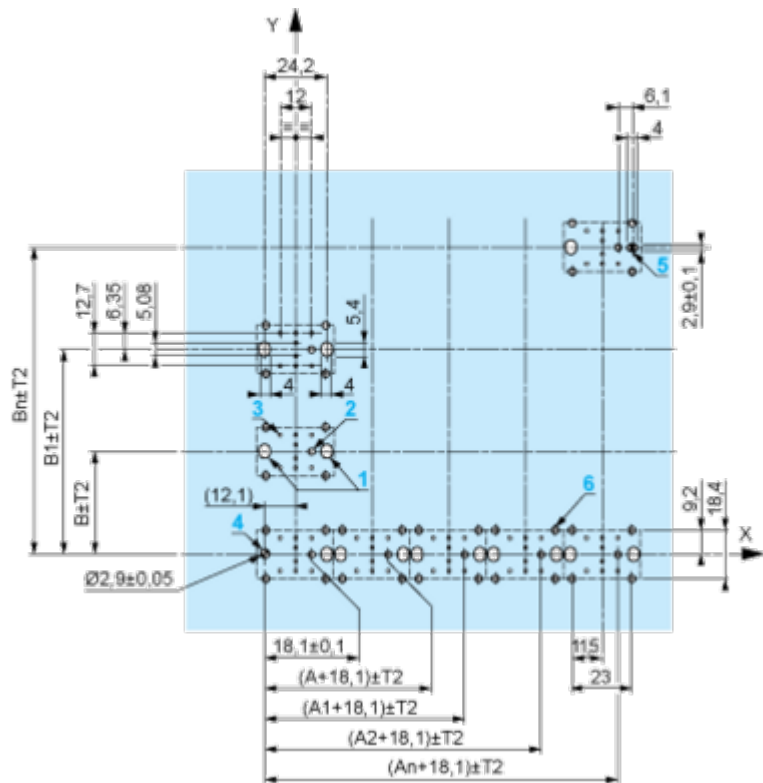


A: 30 mm min. / 1.18 in. min.

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.

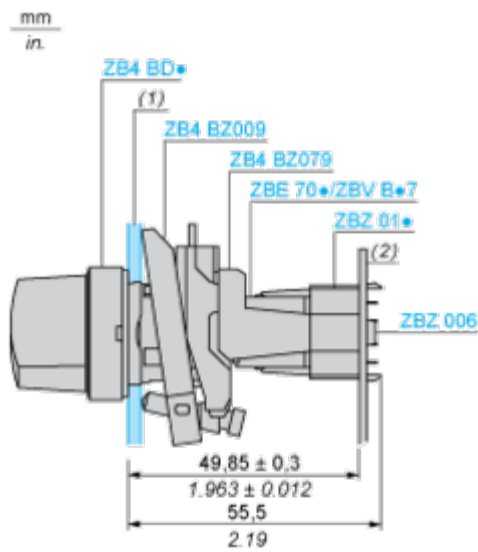
General Tolerances of the Panel and Printed Circuit Board

The cumulative tolerance must not exceed 0.3 mm / 0.012 in:  $T1 + T2 = 0.3 \text{ mm max.}$

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  $8 \times \varnothing 1.2 \text{ mm} / 0.05 \text{ in.}$  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•.

Technical Description

Electrical Composition Corresponding to Code C3

---



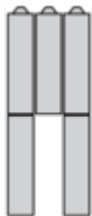
Electrical Composition Corresponding to Code C4

---



Electrical Composition Corresponding to Code C5

---



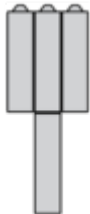
Electrical Composition Corresponding to Code C6

---



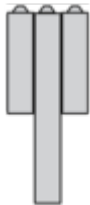
Electrical Composition Corresponding to Code C7

---



Electrical Composition Corresponding to Code C8

---



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



Electrical Composition Corresponding to Code C15

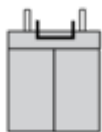
1 N/O



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



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 |

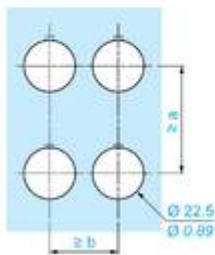
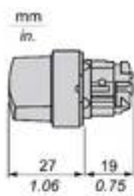
Position 45°



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

Technical Illustration

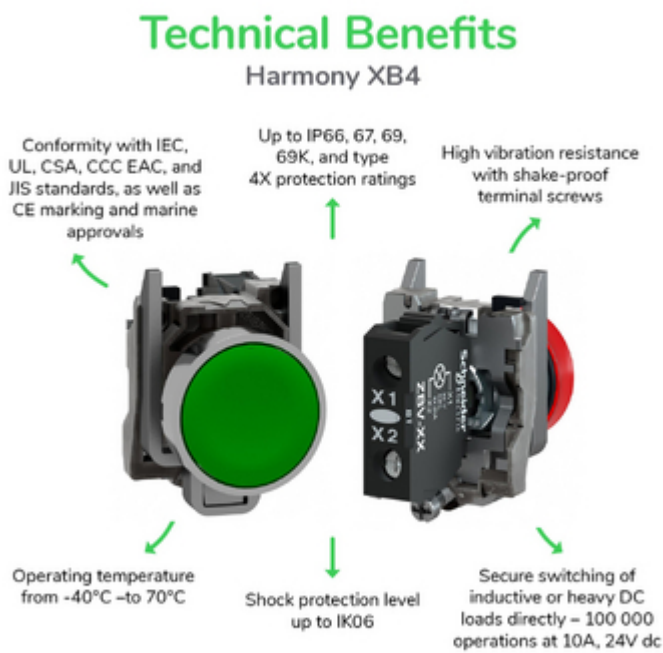
Dimensions



|           |           | a (mm) a (in.) |      | b (mm) b (in.) |      |
|-----------|-----------|----------------|------|----------------|------|
|           |           | 40             | 1.57 | 30             | 1.18 |
| ZBE.....  | ZBV.....  |                |      |                |      |
|           |           | 45             | 1.77 | 32             | 1.26 |
| ZBE.....3 | ZBV.....3 |                |      |                |      |
|           |           | 40             | 1.57 | 30             | 1.18 |
| ZBE.....4 | ZBV.....4 |                |      |                |      |
|           |           | 50             | 1.97 | 30             | 1.18 |
| ZBE.....5 | ZBV.....5 |                |      |                |      |
|           |           | 40             | 1.57 | 30             | 1.18 |
| ZBE.....9 | ZBV.....9 |                |      |                |      |
|           |           | 40             | 1.57 | 30             | 1.18 |
| ZBRT•     | ZBRV1     |                |      |                |      |

Offer Marketing Illustration

Product benefits / Features



Offer Marketing Illustration

Product benefits / Features

---

### Features

Harmony XB4



Quick and easy assembly and disassembly



Various types of connection: screw clamp, connector, Faston connector, spring terminal, or printed circuit board



Excellent mechanical connection with operator head



Large set of accessories to customize your panels



Robustness to withstand harsh environments



Image of product / Alternate images

Alternative

---





