

# Product data sheet

## Characteristics

# ZB5AG314

Head for key selector switch, Harmony XB5, XB4, Ø22 mm 3 position stay put 520E



EAN Code: 3389110135725



## Main

|                               |                              |
|-------------------------------|------------------------------|
| Range of product              | Harmony XB5                  |
| Product or component type     | Head for key selector switch |
| Device short name             | ZB5                          |
| Bezel material                | Dark grey plastic            |
| Mounting diameter             | 22 mm                        |
| Head type                     | Standard                     |
| Sale per indivisible quantity | 1                            |
| Shape of signaling unit head  | Round                        |
| Type of operator              | Stay put                     |
| Operator profile              | Black key switch             |
| Operator position information | 3 positions +/- 45°          |
| Type of keylock               | Key 520E                     |
| Key withdrawal position       | Center                       |

## Complementary

|                             |   |
|-----------------------------|---|
| CAD overall width           | 29 mm   |
| CAD overall height          | 29 mm   |
| CAD overall depth           | 72 mm   |
| Net weight                  | 0.057 kg  |
| Mechanical durability       | 1000000 cycles  |
| Station name                | XALD 1...5 cut-outs<br>XALK 2...5 cut-outs  |
| Electrical composition code | C4 for <6 contacts using single and double blocks in front mounting<br>C5 for <5 contacts using single blocks in front mounting<br>C6 for <5 contacts using single and double blocks in front mounting<br>C7 for <4 contacts using single blocks in front mounting<br>C8 for <4 contacts using single and double blocks in front mounting<br>C11 for <3 contacts using single blocks in front mounting<br>C3 for <6 contacts using single blocks in front mounting<br>SF1 for <3 contacts using single blocks in front mounting<br>SR1 for <3 contacts using single blocks in rear mounting |
| 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 II 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   |
| Resistance to high pressure washer | 7000000 Pa at 55 °C, distance : 0.1 m  |
| IK degree of protection            | IK06 conforming to IEC 50102   |
| Standards                          | EN/IEC 60947-5-1<br>EN/IEC 60947-1<br>UL 508<br>CSA C22.2 No 14<br>JIS C8201-5-1<br>EN/IEC 60947-5-4<br>JIS C8201-1  |
| Product certifications             | LROS (Lloyds register of ship-<br>ping)[RETURN]GL[RETURN]BV[RETURN]DNV[RETURN]UL<br>listed[RETURN]CSA  |
| 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<br>60068-2-27<br>50 gn (duration = 11 ms) for half sine wave acceleration conforming to IEC<br>60068-2-27 |

## Packing Units

|                              |        |
|------------------------------|--------|
| Unit Type of Package 1       | PCE    |
| Number of Units in Package 1 | 1      |
| Package 1 Height             | 8.8 cm |
| Package 1 Width              | 3.4 cm |
| Package 1 Length             | 5.4 cm |
| Package 1 Weight             | 50.0 g |

## Offer Sustainability

|                            |  |
|----------------------------|--|
| Sustainable offer status   | Green Premium product                                      |
| REACH Regulation           | <a href="#">REACH Declaration</a>                          |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope) |
| Mercury free               | Yes  |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</a>                     |
| RoHS exemption information | <a href="#">Yes</a>  |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>              |
| Circularity Profile        | <a href="#">End Of Life Information</a>                    |

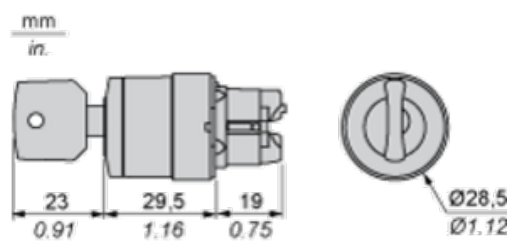
## Contractual warranty

|          |           |
|----------|-----------|
| 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



- (1) Diameter on finished panel or support  
(2) For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended.  
(3)  $\varnothing 22.5$  mm recommended ( $\varnothing 22.3 \text{ }_0^{+0.4}$ ) /  $\varnothing 0.89$  in. recommended ( $\varnothing 0.88 \text{ in. }_0^{+0.016}$ )

| Connections                                   | a in mm | a in in. | b in mm | b in in. |
|---|---------|----------|---------|----------|
| By screw clamp terminals or plug-in connector | 40      | 1.57     | 30      | 1.18     |
| By Faston connectors                          | 45      | 1.77     | 32      | 1.26     |
| On printed circuit board                      | 30      | 1.18     | 30      | 1.18     |

### Detail of Lug Recess



- (1) Diameter on finished panel or support  
(2) For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended.  
(3)  $\varnothing 22.5$  mm recommended ( $\varnothing 22.3 \text{ }_0^{+0.4}$ ) /  $\varnothing 0.89$  in. recommended ( $\varnothing 0.88 \text{ in. }_0^{+0.016}$ )

### 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 ZB5AZ009:  $\pm 2^\circ 30'$  (excluding cut-outs marked a and b).
- Tightening torque of screws ZBZ006: 0.6 N.m (5.3 lbf.in) max.
- Allow for one ZB5AZ079 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 (ZB5AD•, ZB5AJ•, ZB5AG•).

The fixing centers marked a and b are diagonally opposed and must align with those marked 4 and 5.



(1) Head ZB5AD•

(2) Panel

(2) Nut

#### (4) Printed circuit board

##### Mounting of Adapter (Socket) ZBZ01•

- 1 2 elongated holes for ZBZ006 screw access
- 2 1 hole  $\varnothing 2.4 \text{ mm} \pm 0.05 / 0.09 \text{ in.} \pm 0.002$  for centring adapter ZBZ01•
- 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 ZBZ01•

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 ZBZ01•.

---

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 Code C3

---



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

---

## Legend

---

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 | Centre | Right  |      |
| State    |          | 1    | 1      | 0      |      |
| Contacts | N/O      |      | closed | closed | open |
| N/C      |          | open | open   | closed |      |

### Position 0°



|          |          |        |        |        |      |
|----------|----------|--------|--------|--------|------|
| 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    |          | 0      | 1      | 1      |        |
| Contacts | N/O      |        | open   | closed | closed |
| N/C      |          | closed | open   | open   |        |